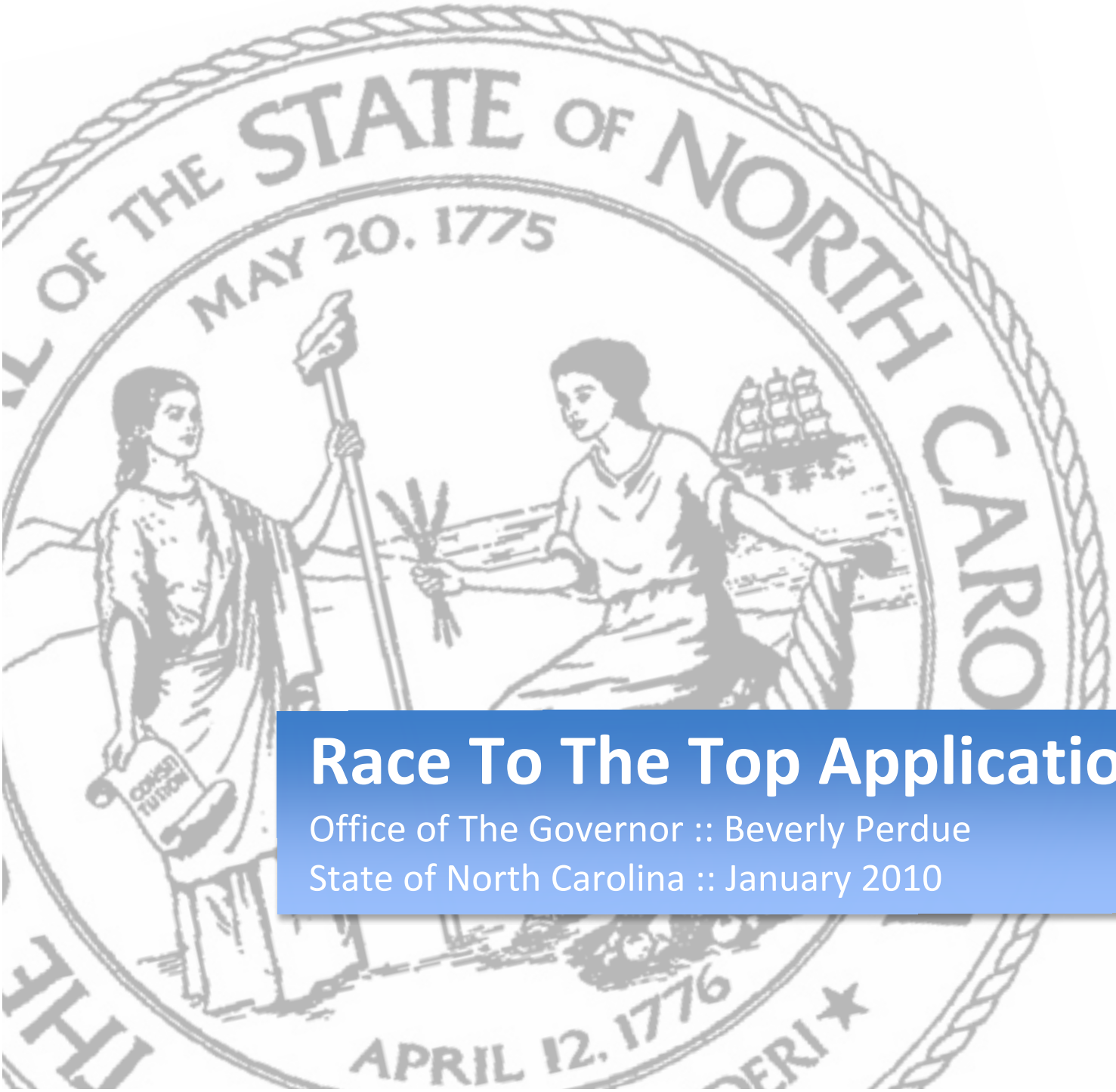


Race To The Top Application

Office of The Governor :: Beverly Perdue

State of North Carolina :: January 2010

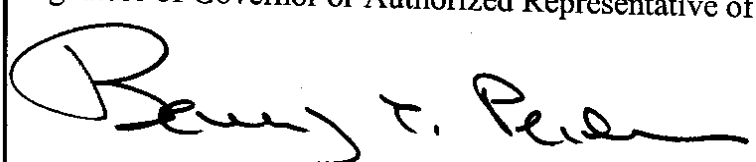
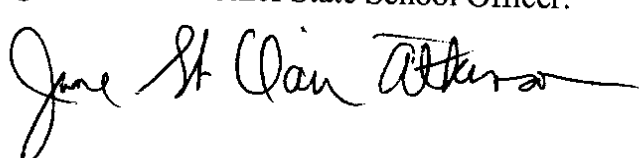
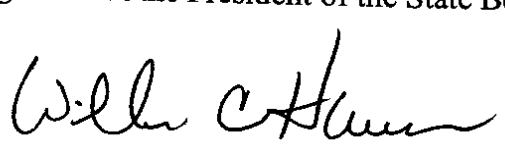
III. RACE TO THE TOP APPLICATION ASSURANCES
(CFDA No. 84.395A)

Legal Name of Applicant (Office of the Governor):	Applicant's Mailing Address:
Office of the Governor (NC) Beverly Eaves Perdue, Governor	Office of the Governor 20301 Mail Service Center Raleigh, NC 27699-0301
Employer Identification Number: 561310675	Organizational DUNS: 003553190
State Race to the Top Contact Name: (Single point of contact for communication) William(Bill) C. Harrison	Contact Position and Office: Chairman, NC State Board of Education
Contact Telephone: 919-807-3441	Contact E-mail Address: Wharrison@dpi.state.nc.us

Required Applicant Signatures:

To the best of my knowledge and belief, all of the information and data in this application are true and correct.

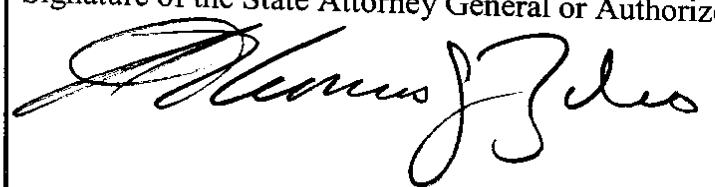
I further certify that I have read the application, am fully committed to it, and will support its implementation:

Governor or Authorized Representative of the Governor (Printed Name): Beverly Eaves Perdue	Telephone: 919-733-5811
Signature of Governor or Authorized Representative of the Governor: 	Date: 1/14/10
Chief State School Officer (Printed Name): June St. Clair Atkinson	Telephone: 919-807-3430
Signature of the Chief State School Officer: 	Date: 1/14/10
President of the State Board of Education (Printed Name): William C. Harrison	Telephone: 919-807-3441
Signature of the President of the State Board of Education: 	Date: 1/14/10

State Attorney General Certification

I certify that the State's description of, and statements and conclusions concerning, State law, statute, and regulation in its application are complete, accurate, and constitute a reasonable interpretation of State law, statute, and regulation.
(See especially Eligibility Requirement (b), Selection Criteria (B)(1), (D)(1), (E)(1), (F)(2), (F)(3).)

I certify that the State does not have any legal, statutory, or regulatory barriers at the State level to linking data on student achievement (as defined in this notice) or student growth (as defined in this notice) to teachers and principals for the purpose of teacher and principal evaluation.

State Attorney General or Authorized Representative (Printed Name):	Telephone:
Thomas J. Ziko, Senior Deputy Attorney General	919-716-6920
Signature of the State Attorney General or Authorized Representative: 	Date: 1/14/10

IV. ACCOUNTABILITY, TRANSPARENCY, REPORTING AND OTHER ASSURANCES AND CERTIFICATIONS

Accountability, Transparency and Reporting Assurances

The Governor or his/her authorized representative assures that the State will comply with all of the accountability, transparency, and reporting requirements that apply to the Race to the Top program, including the following:

- For each year of the program, the State will submit a report to the Secretary, at such time and in such manner as the Secretary may require, that describes:
    - the uses of funds within the State;
    - how the State distributed the funds it received;
    - the number of jobs that the Governor estimates were saved or created with the funds;
    - the State's progress in reducing inequities in the distribution of highly qualified teachers, implementing a State longitudinal data system, and developing and implementing valid and reliable assessments for limited English proficient students and students with disabilities; and
    - if applicable, a description of each modernization, renovation, or repair project approved in the State application and funded, including the amounts awarded and project costs (ARRA Division A, Section 14008)

- The State will cooperate with any U.S. Comptroller General evaluation of the uses of funds and the impact of funding on the progress made toward closing achievement gaps (ARRA Division A, Section 14009)

- If the State uses funds for any infrastructure investment, the State will certify that the investment received the full review and vetting required by law and that the chief executive accepts responsibility that the investment is an appropriate use of taxpayer funds. This certification will include a description of the investment, the estimated total cost, and the amount of covered funds to be used. The certification will be posted on the State's website and linked to www.Recovery.gov. A State or local agency may not use funds under the ARRA for infrastructure investment funding unless this certification is made and posted. (ARRA Division A, Section 1511)

- The State will submit reports, within 10 days after the end of each calendar quarter, that contain the information required under section 1512(c) of the ARRA in accordance with any guidance issued by the Office of Management and Budget or the Department. (ARRA Division A, Section 1512(c))

- The State will cooperate with any appropriate Federal Inspector General's examination of records under the program. (ARRA Division A, Section 1515)

Other Assurances and Certifications

The Governor or his/her authorized representative assures or certifies the following:

- The State will comply with all applicable assurances in OMB Standard Forms 424B (Assurances for Non-Construction Programs) and to the extent consistent with the State's application, OMB Standard Form 424D (Assurances for Construction Programs), including the assurances relating to the legal authority to apply for assistance; access to records; conflict of interest; merit systems; nondiscrimination; Hatch Act provisions; labor standards; flood hazards; historic preservation; protection of human subjects; animal welfare; lead-based paint; Single Audit Act; and the general agreement to comply with all applicable Federal laws, executive orders and regulations.

- With respect to the certification regarding lobbying in Department Form 80-0013, no Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the making or renewal of Federal grants under this program; the State will complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," when required (34 C.F.R. Part 82, Appendix B); and the State will require the full certification, as set forth in 34 C.F.R. Part 82, Appendix A, in the award documents for all subawards at all tiers.

- The State will comply with all of the operational and administrative provisions in Title XV and XIV of the ARRA, including Buy American Requirements (ARRA Division A, Section 1605), Wage Rate Requirements (section 1606), and any applicable environmental impact requirements of the National Environmental Policy Act of 1970 (NEPA), as amended, (42 U.S.C. 4371 et seq.) (ARRA Division A, Section 1609). In using ARRA funds for infrastructure investment, recipients will comply with the requirement regarding Preferences for Quick Start Activities (ARRA Division A, Section 1602).

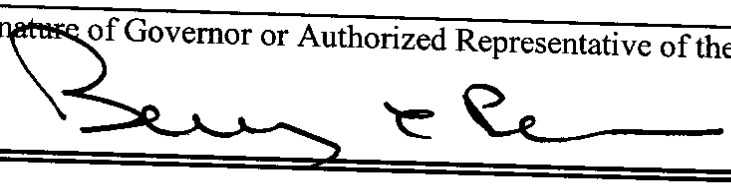
- Any local educational agency (LEA) receiving funding under this program will have on file with the State a set of assurances that meets the requirements of section 442 of the General Education Provisions Act (GEPA) (20 U.S.C. 1232e).

- Any LEA receiving funding under this program will have on file with the State (through either its Stabilization Fiscal Stabilization Fund application or another U.S. Department of Education Federal grant) a description of how the LEA will comply with the requirements of section 427 of GEPA (20 U.S.C. 1228a). The description must include information on the steps the LEA proposes to take to permit students, teachers, and other program beneficiaries to overcome barriers (including barriers based on gender, race, color, national origin, disability, and age) that impede access to, or participation in, the program.

- The State and other entities will comply with the Education Department General Administrative Regulations (EDGAR), including the following provisions as applicable: 34 CFR Part 74–Administration of Grants and Agreements with Institutions of Higher Education, Hospitals, and Other Non-Profit Organizations; 34 CFR Part 75–Direct Grant Programs; 34 CFR Part 77– Definitions that Apply to Department Regulations; 34 CFR Part

80– Uniform Administrative Requirements for Grants and Cooperative Agreements to State and Local Governments, including the procurement provisions; 34 CFR Part 81– General Education Provisions Act–Enforcement; 34 CFR Part 82– New Restrictions on Lobbying; 34 CFR Part 84–Governmentwide Requirements for Drug-Free Workplace (Financial Assistance); 34 CFR Part 85–Governmentwide Debarment and Suspension (Nonprocurement).

SIGNATURE BLOCK FOR CERTIFYING OFFICIAL

Governor or Authorized Representative of the Governor (Printed Name):	
Beverly Eaves Perdue	
Signature of Governor or Authorized Representative of the Governor: 	Date: 1/14/10

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SELECTION CRITERIA: PROGRESS AND PLANS IN THE FOUR EDUCATION REFORM AREAS

(A) State Success Factors (125 total points)

(A)(1) Articulating State's education reform agenda and LEAs' participation in it *(65 points)*

The extent to which—

(i) The State has set forth a comprehensive and coherent reform agenda that clearly articulates its goals for implementing reforms in the four education areas described in the ARRA and improving student outcomes statewide, establishes a clear and credible path to achieving these goals, and is consistent with the specific reform plans that the State has proposed throughout its application; *(5 points)*

(ii) The participating LEAs (as defined in this notice) are strongly committed to the State's plans and to effective implementation of reform in the four education areas, as evidenced by Memoranda of Understanding (MOUs) (as set forth in Appendix D) or other binding agreements between the State and its participating LEAs (as defined in this notice) that include— *(45 points)*

(a) Terms and conditions that reflect strong commitment by the participating LEAs to the State's plans;

(b) Scope-of-work descriptions that require participating LEAs (as defined in this notice) to implement all or significant portions of the State's Race to the Top plans; and

(c) Signatures from as many as possible of the LEA superintendent (or equivalent), the president of the local school board (or equivalent, if applicable), and the local teachers' union leader (if applicable) (one signature of which must be from an authorized LEA representative) demonstrating the extent of leadership support within participating LEAs (as defined in this notice); and

(iii) The LEAs that are participating in the State's Race to the Top plans (including considerations of the numbers and percentages of participating LEAs, schools, K-12 students, and students in poverty) will translate into broad statewide impact, allowing the State to reach its ambitious yet achievable goals, overall and by student subgroup, for—*(15 points)*

(a) Increasing student achievement in (at a minimum) reading/language arts and mathematics, as reported by the NAEP and the assessments required under the ESEA;

(b) Decreasing achievement gaps between subgroups in reading/language arts and mathematics, as reported by the NAEP and

the assessments required under the ESEA;

(c) Increasing high school graduation rates (as defined in this notice); and

(d) Increasing college enrollment (as defined in this notice) and increasing the number of students who complete at least a year's worth of college credit that is applicable to a degree within two years of enrollment in an institution of higher education.

In the text box below, the State shall describe its current status in meeting the criterion, as well as projected goals as described in (A)(1)(iii). The narrative or attachments shall also include, at a minimum, the evidence listed below, and how each piece of evidence demonstrates the State's success in meeting the criterion. The narrative and attachments may also include any additional information the State believes will be helpful to peer reviewers. For attachments included in the Appendix, note in the narrative the location where the attachments can be found.

Evidence for (A)(1)(ii):

- An example of the State's standard Participating LEA MOU, and description of variations used, if any.
- The completed summary table indicating which specific portions of the State's plan each LEA is committed to implementing, and relevant summary statistics (see Summary Table for (A)(1)(ii)(b), below).
- The completed summary table indicating which LEA leadership signatures have been obtained (see Summary Table for (A)(1)(ii)(c), below).

Evidence for (A)(1)(iii):

- The completed summary table indicating the numbers and percentages of participating LEAs, schools, K-12 students, and students in poverty (see Summary Table for (A)(1)(iii), below).
- Tables and graphs that show the State's goals, overall and by subgroup, requested in the criterion, together with the supporting narrative. In addition, describe what the goals would look like were the State not to receive an award under this program.

Evidence for (A)(1)(ii) and (A)(1)(iii):

- The completed detailed table, by LEA, that includes the information requested in the criterion (see Detailed Table for (A)(1), below).

Recommended maximum response length: Ten pages (excluding tables)

In 2007, the NC State Board of Education (SBE) set the following mission for NC education:

> *Every public school student will graduate from high school, globally competitive for work and post-secondary education and prepared for life in the 21st century.*

In line with this mission, the SBE also set the following goals:

1. NC public schools will produce globally competitive students.
   - Every student will excel in a rigorous and relevant core curriculum that reflects what students need to know and demonstrate in a global, 21st century environment;
   - Every student's achievement will be measured with an assessment system that informs instruction and evaluates knowledge, skills, performance, and dispositions; and
   - Every student will use technology to access and demonstrate the knowledge and skills needed to be competitive in a constantly changing, international environment.
2. NC public schools will be led by 21st century professionals.
   - Every teacher will have the skills to deliver 21st century content with 21st century tools and technology that guarantee student learning;
   - Every education professional will have pre-service preparation and access to ongoing high-quality professional development aligned with SBE priorities; and
   - Every educational professional will use data to inform decisions.
3. Leadership will guide innovation in NC public schools.
   - School professionals will collaborate with national and international partners to discover innovative, transformational strategies that will facilitate change, remove barriers to learning, and foster global connections;
   - School leaders will create a culture that embraces change and promotes dynamic, continuous improvement; and
   - Educational professionals will collaborate with parents, students, businesses, institutions of higher education, and community

organizations to provide enhanced educational opportunities for students.

4. NC public schools will be governed and supported by 21st century systems.
   - Financial planning will focus on priorities to maximize student achievement;
   - Information and fiscal accountability systems will collect relevant data and report strategic and operational results; and
   - Established procedures will be implemented to support and sanction schools that are not meeting state standards for student achievement.

With these goals, NC leads the nation in making a sweeping commitment to systemic change that emphasizes preparation for 21st century work and citizenship, is benchmarked to international standards, and is backed by a sophisticated technology infrastructure that enhances teaching, leadership, assessment, and accountability.

NC has moved forward systematically and aggressively to address these goals throughout all of its local education agencies (LEAs), which together contain about 2,400 public schools, 191,000 staff, and a diverse population of 1.4 million students (54.2% white, 31.2% black, 10.7% Hispanic, 2.5% Asian, and 1.4% American Indian), about half of whom – more than 700,000 – are classified as from economically distressed homes.

NC LEAs are comprised of a few large urban school districts and many small districts. The two largest LEAs, Wake County and Charlotte-Mecklenburg County, each serve more than 130,000 students. Each of the other 98 counties in NC also comprises an LEA, with 85 of these counties classified as rural. In addition, there are 15 towns that serve as their own LEAs, for a total of 115 LEAs statewide. According to the National Center for Education Statistics (NCES), NC contains 1,100 schools in rural areas and 354 schools in small towns. Many of these areas are economically distressed as a result of changes in their traditional agrarian and manufacturing economies. School reform in these communities involves different challenges and requires different strategies than does reform in urban communities. As a result, NC is well positioned to make significant contributions to the national discussion about improving rural schools.

Governor Beverly Perdue, who took office in January 2009, has fashioned a distinguished career as a state education reform leader

during her more than 20 years as a State Representative, Senator, and Lt. Governor. Her focus on education continues a long tradition of Executive Branch education reform leadership in the state. Most notable is James B. Hunt, Jr., who in four years as lieutenant governor (1973-1977) and 16 years as governor (1977-1985, 1993-2001) initiated state-supported preschool and kindergarten programs, an expanded curriculum, class-size reductions, teacher salary increases, improved preparation and professional development for teachers, incentive awards based on school performance, higher standards, and mandatory statewide assessments. His successor, Michael F. Easley, was named America's Greatest Education Governor by the National Education Association in 2008 for his efforts to create positive working conditions for educators and to support both early-childhood initiatives and programs that bridge the gap between high school and college, such as the Early College High Schools.

Governor Perdue is now pursuing an aggressive agenda for improving NC schools so that they can better prepare our students for life in the 21st century. As Lt. Governor, she initiated the Business Education Technology Alliance to fully integrate technology and innovation into all levels of education, P-20. Through this Alliance, she led both the School Connectivity Initiative to provide broadband Internet access for all schools and the creation of the NC Virtual Public School (NCVPS) to expand learning opportunities for students throughout NC. Now, as Governor, her reform agenda centers on a strong, vertical alignment of educational resources designed to meet the education needs of NC citizens "from the high chair to the rocking chair," as well as from the mountains to the coast. In July 2009, Governor Perdue initiated the Transformational Dialogue for Public Education in partnership with key education and business leaders to build a broad base of support and investment in re-conceiving and rebuilding our public education system.

Ongoing NC initiatives that provide a foundation for the NC *RttT* proposal are summarized in section A3 and are described in more detail in the relevant sections of the proposal. Overall, the NC reform agenda is built upon the following principles:

- A professional, skilled, and dedicated teaching workforce is NC's highest priority;
- Bold and effective leadership at the school, district, and state levels is critical for successful reforms;
- Standards must be set high for both students and educators;
- Change must be local, context-sensitive, and supported by statewide resources and infrastructure;

- Policy and program decisions must be informed by relevant data;
- Reform initiatives need to be aligned and sustainable;
- Technology provides powerful ways to enable and enhance school improvements;
- Evaluation and analysis of initiatives is essential for improvement; and
- The reform process can succeed only through collaborations in which all stakeholder groups are represented.

NC *RttT* Proposal Focus Areas

The proposed NC *RttT* plan builds on NC's education mission and goals, along with extensive data and analyses, to strategically focus resources on two major goals that best address the needs of NC within the *RttT* reform areas and guidelines:

1. Strengthen the education workforce to ensure that every student has effective teachers and every school has effective leadership;
2. Improve the lowest-achieving schools and districts so every student and teacher is in a school context and culture that supports educational achievement.

Other components central to the NC plan support these two major focus areas. These components include: *curriculum standards*; formative, diagnostic, interim, and summative *assessments*; *professional standards* and *evaluation processes* for teachers and administrators; *data systems*; *technology* to improve teaching, learning, and school management; and *evaluations* to inform program improvements and policy decisions.

The rationale for selecting these focus areas and the proposed initiatives is informed by:

- Research evidence that teacher quality is the largest determinant of student achievement gains that can be impacted by the school (Sanders *et al*., 1997; Rice, 2003);
- Evidence from the NC Teacher Working Conditions Survey (Hirsch & Emrick, 2007) and related research (*e.g.*, Ingersoll, 2001, Reiman *et al*., 2007) that effective leadership at the school level is essential for recruiting and retaining an effective teaching staff and for increasing student achievement;
- Data on the inequitable distribution of effective teachers and principals in NC, which highlight the need to strengthen the

education workforce in low-performing schools and districts;

- Data on the retention rates and projections of the retirement rates of teachers and principals in NC, which point to potential critical shortages in the NC education workforce in the coming years (Reiman *et al*., 2007);
- Data documenting a shortage of qualified teachers of mathematics and the sciences and of teachers of special-needs students and limited-English-proficiency students; and
- Identified needs in low-performing schools to increase the number of effective teachers and to ensure strong leadership of turnaround processes that are responsive to the different challenges posed by specific urban or rural contexts.

These data lead us to conclude that focusing on education workforce development and on improving the lowest-achieving schools are the focus areas most critical to the successful improvement of NC education.

Goals and Targets

The NC *RttT* plan was developed in coordination with other existing and planned efforts to improve education in NC through a process that involved input from all constituent groups. The agreement of all 115 LEAs and all professional education associations in NC to participate in the NC *RttT* plan (documented in Section A2 below) reflects the open process for developing this proposal that began during the summer of 2009. The NC *RttT* plan and related initiatives are designed to set directions and build capacity that will result in sustainable, long-term improvements in NC public education. Toward that end, we have established the following measureable goals:

- Increased achievement in all grades and for all student subgroups, as measured by National Assessment of Educational Programs (NAEP) results and state assessments;
- An increased high school graduation rate overall and for all student subgroups;
- Production of more college-ready graduates in all student subgroups, as measured by performance on the SAT and AP assessments; and
- An increase in the number of high school graduates who attend college.

Baseline data and targets through 2013-14 for each goal are provided in Table 1 below.

Table 1: Goals, Measures, Baselines, and Final *RttT* Targets

GOAL	MEASURE		BASELINE	2010-2011	2011-2012	2012-2013	TARGET 2013-14
1. Student achievement	NAEP reading, grade 4		218 (2007)	–	221	–	226
	NAEP reading, grade 8		259 (2007)	–	262	–	267
	NAEP math, grade 4		244 (2009)	–	247	–	252
	NAEP math, grade 8		284 (2009)	–	287	–	292
2. Graduation rates	4-year rate		71.7%	73%	75%	77%	80%
3. College readiness	Average SAT composite (% graduates taking)		1,006 (63%)	1,008 (64%)	1,012 (66%)	1,016 (68%)	1,020 (70%)
	Graduates scoring 3 or above on one or more AP exams		17.3%	17.5%	18%	19%	20%
	Proportion of freshmen enrolled in at least one remedial course	UNC	11% (2008)	10%	9%	8%	7%
		Comm Coll*	64% (2008)	60%	56%	52%	48%
4. College enrollment	Proportion of high school graduates who enroll in postsecondary programs		65.6% (2006, NCES)	66.5%	67.5%	68.5%	70%

*NC Community Colleges have open enrollment; about 18% of high school graduates attend Community Colleges, and the cutoff placement cut scores vary by discipline and Community College.

We have not included NC test data in these targets because NC standards and assessments are undergoing significant revisions that will prohibit accurate comparisons across years. As each new assessment is put into place, we will establish a baseline for it and track improvements, both overall and by student subgroup.

Our goals and targets build upon the significant progress we have already made in NC. For example, the NC average grade 4 math NAEP score has improved from 212 in 1992 to 244 in 2009, and the average grade 8 math score has improved from 250 to 284 during the same period – in both cases moving from below the national average to above it. The NC average math SAT score also has shown

a strong pattern of improvement, increasing from 493 in 1999 to 511 in 2009, moving from 18 points below to just 4 points below the national average. NC reading scores have not shown as much improvement on either the NAEP or SAT; however, reading has been a focus area statewide for the past few years and improvements are anticipated in the near future as well. NC graduation rates have been improving, with the four-year rate increasing from 68% in 2006 (when the current method for measuring the rate was first used) to 72% in 2009. Mortenson (2008), using NCES data, reports that NC enrollment in a two-year or four-year college in the year following high school graduation has risen from 48.3% in 1986 to 65.6% in 2006, the eighth-largest percentage gain in the nation. The number of NC students taking AP exams also has increased and is above the national average. Additional details about these gains are provided in Section A3.

While we have seen increases across all student subgroups on these measures, the achievement gaps across student groups have not been reduced significantly. Our *RttT* goals also include a reduction of at least 10% in the gaps between minority and majority students and between low-income and more advantaged students on each of the measures in Table 1. (The subgroup data relevant to each measure in Table 1 are provided in Appendix 1.) This goal reflects the planned focused effort on improving low-achieving schools, which serve disproportionate numbers of minority and low-income students.

Overview of Proposed NC *RttT* Initiatives

Table 2 provides an overview of the major proposal initiatives and the major goals of each. Many of these initiatives are linked and mutually supportive in practice. For example, the professional development initiative in Section D5 provides the capacity to provide professional development for the transition to new standards and assessment initiative in Section B3, and the data systems to support instruction initiative in Section C, while also supporting the turnaround of the lowest-achieving schools effort in Section E. This table does not include related initiatives for which *RttT* funding is not requested, such as NC's ongoing work on summative assessments and data systems.

Table 2: Overview of NC RttT Initiatives

SECTION	INITIATIVES	GOALS
A. State Success Factors		
A	Technology infrastructure and resources	• Establish K-12 education cloud infrastructure to provide cost-effective and robust networking infrastructure for LEAs • Provide digital tools and resources to support all *RttT* initiatives • Prepare all educators to make effective use of online resources and tools
A	Evaluation and policy analyses	• Provide formative evaluations to inform continuous improvement of *RttT* initiatives • Provide summative analyses to inform future program, policy, and funding decisions • Conduct analyses of NC policies to inform the removal of policy barriers and the development of policies that support reforms
B. Standards and Assessment		
B3	Transition to new standards and assessments	• Generate stakeholder support for transition • Ensure that all teachers understand the new standards and assessments • Ensure that stakeholders understand and use summative assessments effectively and appropriately
C. Data Systems to Support Instruction		
C2	State data use	• Ensure that NC data are accessible to all relevant stakeholders • Ensure that all relevant stakeholders are prepared to make effective and appropriate use of the data (linked to D5: Professional Development) • Ensure that data are used to support decision-making and continuous improvement processes
C3	Next-generation curriculum monitoring, benchmark, and cognitive diagnostic assessment system	• Provide online, rapid-response system for formative, interim (benchmark), and diagnostic assessments, all based on a research-based cognitive diagnostic assessment model • Provide instructional improvement system using the assessment data • Provide technology infrastructure to support effective use of the data/instructional improvement system • Prepare teachers to make effective use of the data/instructional improvement system • Improve student achievement outcomes, especially for low-performing students
D. Great Teachers and Leaders		
D2	Teacher and principal evaluation processes	• Fully implement the new NC teacher and principal evaluation processes statewide, with currently available student achievement growth data used as a significant component in the balanced evaluation rubrics
D2	Teacher effectiveness evaluation planning	• Develop, with the engagement of all stakeholders, a state-level, equitable, reliable, and transparent system for integrating student achievement growth data into evaluations for all teachers and principals
D3	Regional Leadership Academies	• Increase the number of principals qualified to lead transformational change in low-performing schools in both rural and urban areas
D3	University and School District partnerships	• Improve teacher preparation, induction, and retention to meet the specific needs of the participating districts • Increase the number of highly qualified teachers in low-income rural areas and low-performing rural schools, with a special focus on mathematics and science teachers

SECTION	INITIATIVES	GOALS
D3	Teach for America expansion	• Increase the number of TFA teachers in low-performing schools, specifically targeting math, science, special education, and English as a second language teachers • Focus recruitment in NC colleges and universities, and expand recruitment to include mid-career professionals and Troops-to-Teachers candidates
D3	Strategic staffing initiatives	• Support LEA development, implementation, and evaluation of programs to strengthen staffing in low-performing schools and high-need areas
D3	North Carolina Virtual Public School expansion	• Expand the availability and use of virtual courses in mathematics and science in low-performing schools and other schools in which curriculum offerings may be limited and qualified teachers unavailable locally
D4	Research on effectiveness of teacher and principal preparation programs	• Expand evaluations of UNC teacher and principal preparation programs, linking programs to student achievement outcomes • Develop lessons learned about effective programs • Use data and lessons learned to inform program improvements to decisions about program expansion and closure • Expand effort to include Independent Colleges and Universities teacher education programs
D5	Professional Development	• Update current approach to include professional development that is job-embedded, ongoing, and based within professional learning communities • Establish sustainable professional development capacity at the district, regional, and state levels • Expand the use of virtual learning for educators to provide accessible and high-quality professional development for all educators throughout NC • Align professional development with major state initiatives, including the standards and assessments, data use, assessment-instructional improvement system, and technology initiatives within *RttT* • Conduct evaluations of professional development programs to determine the impact on teaching practices and student achievement, to inform program improvement and future decisions about professional development policies, programs, and investments
E. Turning Around the Lowest-Achieving Schools		
E2	District and School Transformation Support system	• Improve performance of all low-performing schools, with a specific target of moving all schools above the 60% composite performance level
E2	Science, Technology, Engineering, and Mathematics (STEM) thematic schools	• Develop four coordinated STEM anchor schools, each focused on a major area relevant to NC economic development • Use the anchor schools as centers for professional development, curriculum development, technology use, and innovation to impact networks of STEM schools throughout NC • Connect with work with the NC STEM Community Collaborative and the NC Joining our Businesses and Schools Commission to expand and sustain the networks

LEA Participation and Statewide Impact

NC LEAs are strongly committed to participating in the NC *RttT* Initiatives. Superintendents of all 115 NC LEAs have signed the NC *RttT* Memorandum of Understanding (MOU), along with the Chairs of their local school boards and, with one exception, the local President of the NC Educators Association, which is the state teachers' association affiliated with the National Education Association. As shown in the summary tables below, all LEAs have agreed to participate in all initiatives that are relevant to their schools, which include the initiatives addressed in Sections B, C and D of this proposal. Since 48 LEAs contain the lowest-achieving schools, as defined the criteria in Section E2, only those LEAs are eligible to participate in the initiative to support these schools. Since all LEAs have agreed to participate, they serve 100% of the overall student population, 100% of the students in poverty, and 100% of the schools that fall into the lowest-achieving category, as defined in Section E. This commitment from all LEAs reflects the history of collaboration in NC, the engagement of all stakeholders in the *RttT* proposal development process, and the leadership provided by the Governor, State Superintendent, Chair of the State Board of Education, and leaders of the teachers, administrators, and school board associations. See Appendix 2 for NC's Participating LEA MOU and the detailed table showing the list of LEAs, signatories, and initiatives in which they have agreed to participate.

Summary Table for A.1.ii.b

Elements of State Reform Plans	Number of LEAs Participating (#)	Percentage of Total Participating LEAs (%)
B. Standards and Assessments		
(B)(3) Supporting the transition to enhanced standards and high-quality assessments	115	100
C. Data Systems to Support Instruction		
(C)(3) Using data to improve instruction:		
(i) Use of local instructional improvement systems	115	100
(ii) Professional development on use of data	115	100
(iii) Availability and accessibility of data to researchers	115	100
D. Great Teachers and Leaders		
(D)(2) Improving teacher and principal effectiveness based on performance:		
(i) Measure student growth	115	100
(ii) Design and implement evaluation systems	115	100
(iii) Conduct annual evaluations	115	100
(iv)(a) Use evaluations to inform professional development	115	100
(iv)(b) Use evaluations to inform compensation, promotion and retention	115	100
(iv)(c) Use evaluations to inform tenure and/or full certification	115	100
(iv)(d) Use evaluations to inform removal	115	100
(D)(3) Ensuring equitable distribution of effective teachers and principals:		
(i) High-poverty and/or high-minority schools	115	100
(ii) Hard-to-staff subjects and specialty areas	115	100
(D)(5) Providing effective support to teachers and principals:		
(i) Quality professional development	115	100
(ii) Measure effectiveness of professional development	115	100
E. Turning Around the Lowest-Achieving Schools		
(E)(2) Turning around the lowest-achieving schools	48*	100*
*In 2009-2010, only 48 LEAs contained lowest-achieving schools eligible for the supports detailed in Section E2.		

Summary Table for A.1.ii.c

Signatures acquired from participating LEAs:			
Number of Participating LEAs with all applicable signatures			
	Number of Signatures Obtained (#)	**Number of Signatures Applicable (#)**	**Percentage (%)** (Obtained / Applicable)
LEA Superintendent (or equivalent)	115	115	100
President of Local School Board (or equivalent, if applicable)	115	115	100
Local Teachers' Union Leader (if applicable)	114	115	99

Summary Table for A.1.iii

	Participating LEAs (#)	**Statewide (#)**	**Percentage of Total Statewide (%)** (Participating LEAs / Statewide)
LEAs	115	115	100
Schools	2,399	2,399	100
K-12 Students	1,410,497	1,410,497	100
Students in poverty	700,038	700,038	100

(A)(2) Building strong statewide capacity to implement, scale up and sustain proposed plans *(30 points)*

The extent to which the State has a high-quality overall plan to—

(i) Ensure that it has the capacity required to implement its proposed plans by— *(20 points)*

(a) Providing strong leadership and dedicated teams to implement the statewide education reform plans the State has proposed;

(b) Supporting participating LEAs (as defined in this notice) in successfully implementing the education reform plans the State has proposed, through such activities as identifying promising practices, evaluating these practices' effectiveness, ceasing ineffective practices, widely disseminating and replicating the effective practices statewide, holding participating LEAs (as defined in this notice) accountable for progress and performance, and intervening where necessary;

(c) Providing effective and efficient operations and processes for implementing its Race to the Top grant in such areas as grant administration and oversight, budget reporting and monitoring, performance measure tracking and reporting, and fund disbursement;

(d) Using the funds for this grant, as described in the State's budget and accompanying budget narrative, to accomplish the State's plans and meet its targets, including where feasible, by coordinating, reallocating, or repurposing education funds from other Federal, State, and local sources so that they align with the State's Race to the Top goals; and

(e) Using the fiscal, political, and human capital resources of the State to continue, after the period of funding has ended, those reforms funded under the grant for which there is evidence of success; and

(ii) Use support from a broad group of stakeholders to better implement its plans, as evidenced by the strength of the statements or actions of support from— *(10 points)*

(a) The State's teachers and principals, which include the State's teachers' unions or statewide teacher associations; and

(b) Other critical stakeholders, such as the State's legislative leadership; charter school authorizers and State charter school membership associations (if applicable); other State and local leaders (*e.g.*, business, community, civil rights, and education association leaders); Tribal schools; parent, student, and community organizations (*e.g.*, parent-teacher

associations, nonprofit organizations, local education foundations, and community-based organizations); and institutions of higher education.

In the text box below, the State shall describe its current status in meeting the criterion. The narrative or attachments shall also include, at a minimum, the evidence listed below, and how each piece of evidence demonstrates the State's success in meeting the criterion. The narrative and attachments may also include any additional information the State believes will be helpful to peer reviewers. The State's response to (A)(2)(i)(d) will be addressed in the budget section (Section VIII of the application). Attachments, such as letters of support or commitment, should be summarized in the text box below and organized with a summary table in the Appendix. For attachments included in the Appendix, note in the narrative the location where the attachments can be found.

Evidence for (A)(2)(i)(d):

- The State's budget, as completed in Section VIII of the application. The narrative that accompanies and explains the budget and how it connects to the State's plan, as completed in Section VIII of the application.

Evidence for (A)(2)(ii):

- A summary in the narrative of the statements or actions and inclusion of key statements or actions in the Appendix.

Recommended maximum response length: Five pages (excluding budget and budget narrative)

A.2. Building strong statewide capacity to implement, scale up and sustain proposed plans

A.2.i. Capacity to Implement *RttT* Initiatives

A.2.i.a Strong Leadership and Dedicated Teams

NC's *RttT* initiatives have the advantages of strong leadership, a foundation of ongoing related initiatives, a proven project management framework, and a capable management team already in place. The following subsections describe the key elements of the NC *RttT* governance and management framework.

***Governor's Education Reform Commission*.** Governor Beverly Perdue has been directly involved in both shaping the NC *RttT* vision and securing key stakeholders' support for the proposal. The Governor will continue her direct involvement through her K-12 Education Reform Commission, which will provide strategic planning advice regarding NC's K-12 education reform agenda. This commission will include representatives of LEAs, major NC education associations (teachers, principals, superintendents, parents, school boards, charter schools), higher education, and the business community, along with the Office of the Governor and relevant state agencies. The Commission will advise the State Board of Education (SBE) and the Superintendent of Public Instruction regarding NC *RttT* implementation to ensure that it aligns with NC's overall education reform agenda, is focused on highest-value points of leverage, and moves forward aggressively.

State Board of Education. SBE Chairman Dr. William Harrison will be responsible for oversight of the implementation of NC *RttT* initiatives. Per its statutory authority and responsibility, the SBE sets policy and provides centralized state infrastructure and oversight for the NC system of public schools through the NC Department of Public Instruction (NCDPI). This work includes driving major education reform initiatives, and the NCDPI staff report monthly to the SBE regarding the status of these initiatives. The SBE will employ this same, well-established procedure to drive the NC *RttT* efforts.

On January 6, 2010, the SBE passed a resolution approving this *Race to the Top* proposal and confirming that: 1) NC will work in collaboration with other states on assessments based upon the Common Core standards, as described in Section B1; 2) NC is committed to using student achievement growth data as a significant part of teacher and principal evaluation, after undergoing a

process engaging all stakeholders to determine a valid, fair, and reliable way to do so, as described in Section D2; and 3) the Regional Leadership Academies described in section D3 are approved for certifying principals.

NC Department of Public Instruction. The NCDPI Chief Executive Officer, State Superintendent Dr. June Atkinson, will be responsible for the management of *RttT* Initiatives. NCDPI has a long history of managing large, statewide infrastructure to support LEAs. Statewide support systems include budget and financial, student information, teacher and principal licensure, and content standards and aligned assessments. Against this backdrop, the NCDPI also has recent experience managing large, complex reform initiatives. For example, NC has been focused on reforming standards and assessments through the Accountability & Curriculum Reform Effort (see section B), developing a P-13 Statewide Longitudinal Data System (see section C), implementing new statewide teacher and school executive standards and aligned evaluation instruments (see section D), and delivering support to NC's lowest-achieving districts and schools (see section E). In several of these efforts, the NCDPI has received strategy and planning assistance from the Boston Consulting Group (BCG), with support from the Bill & Melinda Gates Foundation. The capacities and team structures developed, as well as the lessons learned from these large projects, give the NCDPI a solid foundation upon which to build the NC *RttT* project governance and management plan.

The NC *RttT* management team will be comprised of members of Dr. Atkinson's leadership team who are already responsible for the areas of work that correspond with each NC *RttT* initiative. An *RttT* Project Director will lead an *RttT* Project Management Office (PMO) that will: coordinate the overall effort; ensure each initiative team has the management support and resources it needs to be successful; and facilitate planning, communication, and collaboration across the initiatives; and monitor implementation progress. The PMO also will conduct various administrative functions, including initiating and monitoring agreements with LEAs, managing the procurement processes with subcontractors, and reporting to USED.

The NCDPI senior staff who will be responsible for managing the individual *RttT* Initiatives are:

- Dr. Rebecca Garland, Chief Academic Officer;
- Angela Quick, Deputy Chief Academic Officer and Project Director for Assessment and Curriculum Reform;

- Adam Levinson, Director of Policy and Strategic Planning, and Project Director for the P-13 and P-20 Data System efforts;
- Dr. Patricia Ashley, Director, District and School Transformation Division; and
- Dr. Lynne Johnson, Director, Educator Recruitment & Development.

The NC *RttT* PMO will ensure that each unit has the dedicated project management assistance and additional staff needed to accomplish each set of *RttT* initiative objectives within the defined timelines. In addition, the NCDPI senior staff responsible for finance and contracting, IT, HR, and communications will be part of the NC *RttT* management team to ensure all necessary resources are available to support the PMO and initiative leaders. Information about the credentials of each member of the NC *RttT* Management Team is provided in Appendix 3.

Initiative Advisory Groups. Successful implementation of NC *RttT* will depend on close partnerships between the NCDPI project leadership and LEA personnel, professional association representatives, college and university faculty, and other relevant stakeholders. These groups are represented on the SBE and will be represented on the Governor's Education Reform Commission. In addition, each initiative plan will include an advisory group for ensuring ongoing input from LEAs and other stakeholders.

Other Organizations. While the NCDPI will be responsible for overall *RttT* management, other organizations will play key roles in much of the work. For example:

- The University of North Carolina (UNC) General Administration will lead the work on teacher and administrator preparation programs, and individual UNC Colleges and Education and research units will be involved in many of the *RttT* initiatives;
- MCNC, which manages the NC Research and Education Network and plays a central role in the School Connectivity Initiative, will lead the technology support components for *RttT*;
- The NC Professional Teaching Standards Commission will play a major role in the continued development of the teacher and administrator evaluation processes described in Section D2;
- The professional development providers listed in Appendix 4 and others are likely to be involved in the professional development efforts described in Section D3; and

- The NC New Schools Project will support the development of the STEM high schools described in Section E.

We anticipate that additional subcontractors will be engaged for designated parts of the *RttT* effort, using accelerated state procurement processes to make sure the *RttT* work moves forward quickly.

NC RttT Evaluation

Evaluation, designed to inform both continuous improvement of the initiatives and future policy and funding decisions, is critical to the effective implementation of the NC *RttT* initiatives to ensure that they have sustained impact on NC schools. The *RttT* guidelines request evaluations specifically in Section D4, to establish the relationship of preservice programs to student achievement, and in D5, on the effectiveness of professional development programs. Those specific evaluation plans are addressed further in those sections. In addition, we include a plan to evaluate all NC *RttT* initiatives. The evaluations will be designed to determine impact on the target goals of each initiative and on the overall NC *RttT* student goals described above. The evaluations will extract lessons learned about effective practices, recognizing that effective practices are often context-sensitive, which will enable NC *RttT* to share findings internally as well as with the broader national education community. We will employ a rigorous, mixed-methods approach that integrates quantitative and qualitative data collection and analyses.

The NC *RttT* evaluation is designed to provide both formative and summative information for the individual initiatives as well as for the overall NC *RttT* effort. The evaluation effort in year 1 will focus on baseline student, teacher, classroom, school, and district measures across all initiatives. Year 2 will emphasize data collection around the implementation processes of initiatives. In years 3 and 4, evaluation efforts will focus on impact and effectiveness as well as on sustainability and cost-benefit analyses. Results will be shared on a regular basis with NC *RttT* leadership, as well as with the stakeholder communities. The evaluation efforts aim to leverage improvement of effort and measure performance and impact. In addition, evaluation will be linked to policy analyses that consider how current policies facilitate and/or inhibit educational reforms and how NC policies might be revised to support *RttT* and other reform initiatives.

Using collaborative approaches and guided by NC *RttT* management, university-based teams already involved in evaluations of

NC education initiatives and analyses of NC education policies will lead the work. These include the SERVE Center at UNC-Greensboro (which operates the Regional Educational Laboratory-Southeast), the Friday Institute for Educational Evaluation at NC State University, and the Institute for Public Policy at UNC-Chapel Hill. Dr. Chris Dede of Harvard University will serve as a senior consultant for evaluation and policy analysis, building upon his prior work in NC, which includes an analysis of policies related to technology and 21st century teaching and learning. Appendix 5 contains evaluation matrices that provide evaluation questions, data sources and timelines for some of the major *RttT* initiatives.

A.2.i.b. Supporting Participating LEAs

NCDPI Regional Service Delivery Structure

As noted above, the NCDPI has a long history of providing foundational support to all NC LEAs. In 2008, the NCDPI redesigned its framework for providing comprehensive support services to better coordinate the intensive support needed in the lowest-capacity, lowest-achieving districts. The resultant Statewide System of Support employs a regional model that works to coordinate all NCDPI services provided to a given district, school, region, or "affinity group" (such as large urban districts or high-poverty rural districts). NC consultants with expertise in major program areas such as testing and accountability, exceptional children's services, curriculum and instruction, technology, school planning, and instructional management operate in the field, helping school districts and schools assess their needs, identify and implement relevant evidence-based effective practices, and monitor effectiveness.

NC RttT Communications and Change Management Functions

In addition to NCDPI-coordinated regional service delivery approach, the NCDPI provides information to all LEAs through established, centralized communication vehicles, including Superintendents' quarterly meetings, State Superintendent's webinars for targeted groups, and electronic newsletters, listservs, and webpages. This approach has proven very successful in the recent work to develop and disseminate new content standards and also was used for stakeholder engagement during the NC *RttT* proposal development process. NC *RttT* will follow this model, developing clear plans for ensuring transparency, opportunities for feedback

and joint planning, and sharing of new information, materials, and/or results with all relevant stakeholders.

Statewide Technology Infrastructure and Resources

Effective use of information and communications technologies is central to the NC plan to improve K-12 education. These technologies are being used to: enhance classroom teaching and learning; extend the educational resources available to every student and teacher; provide extended virtual learning opportunities for students, teachers, and administrators; improve the use of data in decision making at all levels; increase communications within the school community; and help prepare students for the technological world in which they will live.

This commitment to effective educational use of technology is reflected in the NC School Connectivity Initiative, which has connected all of our public schools to the NC Research and Education Network in order to provide reliable, high-bandwidth connectivity. Other technology initiatives include a series of IMPACT projects funded by Title IID that have created 21st century classrooms and have provided related professional development throughout NC, with documented, positive results on student achievement. More recently, the NC Learning Technology Initiative has supported, with public and private funding, 38 LEAs in planning and implementing "one-to-one" initiatives in which every teacher and student is provided with a laptop computer, wireless access is provided throughout the schools, and teachers receive content-based professional development on using technology to enhance learning.

While a robust and reliable technology infrastructure is essential for 21st century schools, the current system of district-based acquisition and support of the full technology infrastructure is neither cost-efficient nor sustainable in small LEAs with limited resources. To directly support the *RttT* initiatives statewide, we propose to develop the *NC K-12 Education Cloud* to provide a highly reliable, cost-effective, server-based infrastructure that will support K-12 education statewide. This development will involve transitioning statewide from individual, LEA-hosted server infrastructures to this centralized, cloud-hosted infrastructure as a service. The primary objective of the NC Education Cloud is to provide a world-class IT infrastructure as a foundational component of the NC education enterprise, along with:

- Reduced overall cost, with a significant savings once the transition to the Education Cloud is complete;
- Decreased technical support staffing requirements at the LEA level;
- Equity of access to computing and storage resources;
- Efficient scaling according to aggregate NC K-12 usage requirements;
- Consistently high availability, reliability, and performance;
- A common infrastructure platform to support emerging data systems;
- Ability to provide statewide access to core technology applications;
- Improved security; and
- Sustainable and predictable operational cost.

The NC K-12 Education Cloud will be used to provide statewide access to the major digital resources and tools necessary to support *RttT* initiatives. For example, it will provide Learning Management Systems to support both online courses for students and educators and the integration of online resources into traditional courses. It will provide web 2.0 tools, such as blogs, wikis, and social networking tools, in protected spaces appropriate for educational uses by students and teachers. It will provide access to libraries of digital learning objects, such as educational videos that can be streamed into classrooms. It will also provide online spaces for students and teachers to post and share their work, from text to video, and to engage in collaborative work. A common set of online resources and tools will ensure that every student and teacher has equitable access to technology resources. A focused set of digital tools and resources used across NC also will facilitate technical assistance, professional development, and the sharing of resources across classrooms, schools, and districts. More information about the plan for implementing these technology components in support of the *RttT* Initiatives is provided in the NC Education Cloud Feasibility Report located in Appendix 6.

The combination of the prior School Connectivity Initiative and the proposed NC K-12 Education Cloud will provide an essential foundation for the proposed *RttT* initiatives in the following ways:

Standards and Assessments. NC is moving toward providing assessments online, making data collection and analysis more

efficient, providing ready adaptations for students with special needs (*e.g.*, enlarged displays or text-to-speech conversion for visually impaired students), and opening the possibility of branched tests to provide more accurate measurement of each student's achievement.

Data Systems to Support Instruction. The NCWISE and CEDARS data systems depend upon a statewide technology infrastructure for data collection, analysis, reporting, and use. The broadband access provided by the School Connectivity Initiative has been essential in providing every school with access to these data systems. The *RttT* diagnostic assessment initiative requires a sophisticated database structure and online access to provide targeted, timely assessments to inform instructional decisions.

Great Teachers and Leaders. The NC technology infrastructure is essential for most of the teacher- and leader-focused initiatives. It provides: an online system for recording teacher and principal evaluations; technology to provide virtual courses for students when effective teachers are not available locally; and extensive use of online workshops and webinars, virtual learning communities, virtual classroom observations, online coaching, and other uses of technology to extend and enhance both preservice preparation and professional development programs for teachers and administrators.

Turning Around the Lowest-Achieving Schools. All of the uses of technology described above are essential to improving the lowest-achieving schools. In addition, it is essential that students in these schools have equitable access to technology and to teachers with the expertise to use it well, so that they experience the full range of technology uses that their peers in high-achieving schools receive.

A.2.i.c. Effective and Efficient Administrative Operations and Processes

NCDPI will ensure effective and efficient administrative operations and processes for implementing NC *RttT* by integrating these important support functions within the *RttT* PMO. The NCDPI has well-established grant administration, budget reporting and monitoring, and fund disbursement infrastructures. NC also has been among the leading states nationally in submitting complete data to the USED EDEN/EdFacts system. These capabilities have enabled the NCDPI to develop quickly the allocation and reporting mechanisms required to meet the mandates of the State Fiscal Stabilization Fund (Phase I and Phase II) and will provide a

strong framework through which to meet the allocation, reporting, and monitoring requirements of *RttT*.

A.2.i.d. Leveraging Existing State, Federal, and Local Funds (See NC *RttT* Budget)

As noted throughout this proposal, NC is already engaged in a number of major initiatives that address the *RttT* reform areas and that will be accelerated and enhanced with *RttT* funding. During the past two years, the NCDPI has focused on better coordination, reallocation, and repurposing of State and Federal funds that support the agency through such large-scale reform initiatives as those noted above. In fact, the NCDPI redesigned its organization in 2008, with the assistance of the Boston Consulting Group (BCG), to better align its work with a renewed focus on providing service and infrastructure for the LEAs and schools in ways that are consistent with the four *RttT* assurance areas. In addition, the NCDPI is in the process of instituting version 2.0 of a performance management tool created in 2008 to ensure that their activities are focused on achieving the SBE's core objectives.

NC *RttT* will also leverage the significant State and Federal funding that is administered to LEAs for their discretionary use. As described further in Section F1, NC provides approximately 69% ($7.5 billion in FY 2009-10) of all LEA revenue for current expenditures. In addition to providing the basic funds needed to deliver the NC standard course of study, the NC allotments include several large supplemental allotments that LEAs can use largely at their discretion to develop programs that meet the needs of their students. Such allotments include funds for exceptional children ($685 million in FY 2009-10), disadvantaged students ($77 million), students at-risk of academic failure ($228.5 million), students in low wealth LEAs ($209.6 million), students in small LEAs ($45.7 million), career and technical education ($393.6 million), and students with limited English proficiency ($77.6 million). Combining these together with discretionary local dollars and Federal funds, many of which come in supplemental allotment categories similar to their NC counterparts, gives LEAs tremendous flexibility through which to create the right mix of programs to meet the needs of their students and teachers. When implementing the NC *RttT* initiatives, NC will work with each LEA to find the best way to blend short-term *RttT* funding with existing recurring funding to achieve NC and LEA objectives, with a particular focus on developing long-term LEA capacity for sustaining professional growth and student achievement. Examples of this leveraging in relation to *RttT* initiatives include:

- Using existing LEA professional development schedules and funding to support professional learning communities and ensure that all teachers and instructional leaders are well versed in new generation content standards, instructional practices, and technology tools (related to the professional development initiative in Section D5);
- Blending existing LEA supplemental funding with *RttT* funding to support identification and development of emerging prospects for LEA leadership positions (related to the Regional Leadership Academy Initiative in Section D3); and
- Using existing LEA supplemental funding to support school-wide and LEA-wide needs assessment and improvement planning (related to the turning around schools initiative in Section E5 and other initiatives, depending upon the LEA needs).

As noted in Section A.2.v, below, *RttT* evaluation efforts will document those strategies that appear to be most effective at improving the lowest-achieving schools, increasing the graduation rate, and reducing achievement gaps. This information will further support efficient ongoing targeting of blended NC, Federal, and local funding beyond the *RttT* grant period.

A.2.i.e. Planning to Sustain Initiatives

In the current NC fiscal climate, *RttT* funding will provide a critical boost that will enable NC to maintain momentum and accelerate key education reforms. The current economic climate naturally raises concerns about sustaining the *RttT*-supported reforms after the grant period. While it will be a challenge, we are already planning ways to address the issue of sustainability in the following ways:

- *RttT* funds largely will be allocated to capacity-building activities, such as strengthening the education workforce, building a more effective professional development system, implementing a next-generation technology infrastructure for K-12 schools, and increasing the capacities of districts to support school improvement. The ongoing cost to sustain these capacities will be less than the initial investments required to establish them. In addition, NC and the LEAs will have collaborated during the grant period to find the most efficient ways to blend existing, ongoing NC, local, and Federal funding to meet ongoing programmatic needs.
- The planned comprehensive evaluation will enable NC to document proven models for improving the lowest-achieving schools,

increasing student achievement and the graduation rate, reducing achievement gaps, and strengthening the education workforce. NC has a long history of providing strong state support for public education, and we are confident that, as the economy improves, the General Assembly will support innovations that have proven to be successful. By including plans to evaluate thoroughly each NC *RttT* initiative, and demonstrating effective use of all available ongoing funds, we will be able to provide NC policymakers with the evidence they will need to inform decisions about investing further NC and local funding to sustain these models.

- NC business leaders recognize that successful education is cost-effective. Dr. Jim Goodnight, CEO of SAS, Inc. and a leading business proponent for updating and improving education in NC, describes the dropout rate and failure to educate many children as the "clear and present danger" of our time. He emphasizes the high societal and economic costs of failing to prepare young people to succeed in the modern workplace and to be productive members of society. We will leverage the support of the NC business community in sustaining *RttT* initiatives proven to be successful. The NC Network of Grantmakers also has supported the work developing this proposal and is already engaged in considering funding programs that will extend and sustain related initiatives.
- The newly emerging NC STEM Ventures Model, building upon the work on the Bill & Melinda Gates Foundation-funded NC STEM Community Collaborative, is developing a public-private approach to venture philanthropy to support innovation in education. The approach is being designed to effectively leverage public/private investment, incentivize local sustainability, and increase accountability and human capital support of innovative education initiatives. If successful, this approach will further support sustaining *RttT* initiatives that are effective.
- Through the NC *RttT* initiatives and related fiscal and policy analyses, we anticipate cost efficiencies and opportunities for reallocating existing NC and federal funding. For example: successful *RttT* initiatives will reduce the remedial education costs at both the high school and college levels; technological advances will enable efficiencies in the use of digital resources in place of textbooks and paper tests; and virtual learning for students and teachers can provide cost efficiencies. Initial estimates show that

the NC K-12 Cloud Computing Initiative will reduce technology infrastructure costs by $10 to $15 million annually statewide. The cost savings of increasing teacher retention rates also have been well documented (Rieman *et al*., 2007). A close examination of cost-effectiveness and potential savings will be included in the *RttT* evaluation and policy analyses.

- As a result of the highly collaborative process that NC has employed in the development of the NC *RttT* proposal, the vision enjoys meaningful support from NC's key decision-makers. The project governance and management structure described above are designed to maintain collaboration and consensus-building during implementation, thereby extending the base of support for continued funding of successful *RttT* initiatives.

A.2.ii. Broad Stakeholder Support

NC has a strong track record of collaboration across all stakeholder groups to improve the education of its children, and this broad support continues for the NC *RttT* proposal. Governor Perdue, SBE Chair William Harrison, State Superintendent June Atkinson, and Special Assistant to the Governor for Education Myra Best have led the NC *RttT* stakeholder engagement activities that have resulted in letters of support from professional associations, legislative leaders, business leaders, civil rights leaders, local foundations, and community-based organizations. The NC Association of Educators, NC Association of School Administrators, NC School Boards Association, and NC Parent Teachers Association have been actively involved in the NC *RttT* proposal development process, and representatives of these organizations will serve on the Governor's K-12 Education Reform Commission. The teacher, principal, superintendent, and local board advisors to the SBE have played key roles in the *RttT* stakeholder outreach effort. Table 3 lists the letters of support from government, business, and academic leaders; education associations, and other stakeholders; the full letters are provided in a separate document, *NC Stakeholder Letters*.

Table 3: Letters of Support for NC RttT

	Signee	Title
Associations		
American Federation of Teachers/North Carolina (AFT/NC)	Dianne Jackson	President
North Carolina Association of Educators (NCAE)	Sheri Strickland	President
North Carolina Association of School Administrators (NCASA)	Larry E. Price Bill McNeal	President Executive Director
North Carolina Association of Teacher Assistants (NCATA)	Judy Barnes	President
North Carolina Community College System (NCCCS)	Scott Ralls	President
North Carolina Independent Colleges and Universities	Hope Williams	President
North Carolina Lieutenant Governor's Office	Walter Dalton	Lieutenant Governor
North Carolina PTA (NCPTA)	Kyle R Robertson	President
North Carolina Principals & Assistant Principals' Association (NCPAPA)	Shirley Prince, Ed. D.	Executive Director
North Carolina School Boards Association (NCSBA)	Edwin Dunlap, Jr, Ph.D.	Executive Director
Governmental Agencies		
North Carolina Senate	Marc Basnight	President Pro Tem
North Carolina House of Representatives	Joe Hackney	Speaker of the House
North Carolina Superior Court	Howard E. Manning	Judge Leandro Case Custodian
North Carolina Chief Justice (*Retired*)	Burley Mitchell	Former Chief Justice Chair, NC New Schools Project, Inc.
Academia		
Duke University Medical Center & Health System (DUMC)	Victor J. Dzau, M.D.	Chancellor President and Chief Executive Officer
The University of North Carolina System	Erskine B. Bowles	President
Foundations/Non-Profit Organizations		
The Golden LEAF Foundation	Dan Gerlach Mark Sorrells	President Senior Vice President
James B. Hunt, Jr. Institute for Educational Leadership and Policy	James B. Hunt, Jr.	Foundation Chair Chair, Institute for Emerging Issues Former Governor 1977-1985 and 1993-2001

	Signee	Title
Businesses		
AT&T North Carolina	Cynthia Marshall	President
North Carolina Chamber of Commerce	Lewis Ebert	President and CEO
SAS, Inc.	Jim Goodnight	Founder & President
Educators		
Regional and State Teachers of the Year and Milken Educators	Cindi Rigsbee Jessica Garner Martha Anderson Paige Elliott Nicole Murray Trisha Muse Ruth Ann Parker Renee Peoples Janice Raper Sonya Rinehart Robert Turner Bernard Waugh Bryan Holley Cynthia Rudolph	08-09 North Carolina Teacher of the Year 09-10 North Carolina Teacher of the Yea 09-10 Sandhills/South Central Region Teacher of the Year 08-09 North Central Region Teacher of the Year 09-10 Southeast Regional Teacher of the Year 08-09 Sandhills/South Central Region Teacher of the Year 08-09 Southeast Region Teacher of the Year 08-09 West Region Teacher of the Year 08-09 Northwest Region Teacher of the Year 08-09 Northeast Region Teacher of the Year 09-10 Northwest Region Teacher of the Year 08-09 Southwest Region Teacher of the Year 2008 Milken Educator 2009 Milken Educator

(A)(3) Demonstrating significant progress in raising achievement and closing gaps *(30 points)*

The extent to which the State has demonstrated its ability to—

(i) Make progress over the past several years in each of the four education reform areas, and used its ARRA and other Federal and State funding to pursue such reforms; *(5 points)*

(ii) Improve student outcomes overall and by student subgroup since at least 2003, and explain the connections between the data and the actions that have contributed to — *(25 points)*

(a) Increasing student achievement in reading/language arts and mathematics, both on the NAEP and on the assessments required under the ESEA;

(b) Decreasing achievement gaps between subgroups in reading/language arts and mathematics, both on the NAEP and on the assessments required under the ESEA; and

(c) Increasing high school graduation rates.

In the text box below, the State shall describe its current status in meeting the criterion. The narrative or attachments shall also include, at a minimum, the evidence listed below, and how each piece of evidence demonstrates the State's success in meeting the criterion. The narrative and attachments may also include any additional information the State believes will be helpful to peer reviewers. For attachments included in the Appendix, note in the narrative the location where the attachments can be found.

Evidence for (A)(3)(ii):

- NAEP and ESEA results since at least 2003. Include in the Appendix all the data requested in the criterion as a resource for peer reviewers for each year in which a test was given or data was collected. Note that this data will be used for reference only and can be in raw format. In the narrative, provide the analysis of this data and any tables or graphs that best support the narrative.

Recommended maximum response length: Six pages

A.3. Demonstrating significant progress in raising achievement and closing gaps

A.3.i. Progress over the past several years in each of the four education reform areas

NC's education goals, as described in Section A1, are consistent with the *RttT* reform areas, and NC has been actively engaged in education reforms that are aligned with the *RttT* reform areas and criteria. In addition, NC has shown strong gains in student outcomes overall and within each student subgroup. We recognize, however, that NC still has many challenges to meet in providing effective education for all students and in closing the achievement gaps across student groups. NC *RttT* plans are designed to help us address those challenges. The major ongoing NC initiatives related to the *RttT* reform areas are described below, followed by a summary of the data on improvements in student outcomes.

Adopting Rigorous and Forward-Looking Standards and Assessments

In 2007, the NC Blue Ribbon Commission on Testing and Accountability report galvanized the State Board of Education to revise NC's standards, assessments, and accountability. The NC Department of Public Instruction (NCDPI) developed an ambitious plan to create an integrated system of essential standards and coordinated assessments. This two-phase initiative, the Accountability and Curriculum Redesign Effort (ACRE), began in the fall of 2008 and will be fully implemented by the fall of 2012. NC has further demonstrated commitment to improving the quality of its standards by joining the Common Core State Standards Initiative, as described further in Section B1. NC is currently engaged in a comprehensive review and revision of the K-12 Standard Course of Study that will align NC standards in all content areas with the goals of the Common Core Initiative, thereby establishing fewer, clearer, and higher standards that are aligned with college and workforce expectations and that are benchmarked against high-performing nations.

The U.S. Department of Education State Assessment Grant ($10.1 million) is directly utilized to develop assessments that will help assure our students are prepared for success in college or the workplace. Our ESEA Title I Basic and School Improvement grants (regular and ARRA) help with the development and enhancement of our required curriculum, which is aligned to the rigorous

standards. Federal IDEA funds (preschool, regular, and ARRA) are used to ensure that we implement teaching strategies that improve instructions for our children with special needs. In addition to the ESEA and IDEA grants, we have utilized other federal grants, such as Reading First and Math/Science Partnership, to enhance the delivery of instruction to improve student performance tied to rigorous standards and assessments.

Data Systems to Support Instruction

NC continues to be a leader in the development and implementation of comprehensive data systems designed to improve instruction. The NC Window on Student Education (NCWISE) system provides a statewide, web-based, centrally maintained system for capturing, accessing, and reporting a wide spectrum of student information. First introduced in 2004, NCWISE is now in use by all 115 LEAs and 96 charter schools in NC. The Common Education Data Analysis & Reporting System (CEDARS) is a longitudinal data system that, when completed this year, will enable ready access to P-13 data about students, staff, programs, and finances that allow educators, researchers, and policymakers to analyze trends and relationships among various educational factors and student performance over time. CEDARS is part of NC's Data Quality Initiative, the primary focus of which is to assess and improve the overall quality of agency data prior to distributing those data for external use. In addition, NC has submitted a Longitudinal Data Systems proposal to the USED to help fund data linkage across PK-12, university, community college, independent colleges, and workforce systems, and to further align NC's data systems with each element of the *America COMPETES Act*. More details on NC WISE and CEDARS can be found in Section C.

North Carolina has partnered with SAS Institute Inc. to make their Educational Value Added Assessment System (EVAAS) available to all public schools in the State, through a direct appropriation from the North Carolina General Assembly We have utilized federal IDEA resources to develop/implement a Comprehensive Exceptional Children Accountability System (CECAS). In addition, federal funds were also used to help develop the Career and Technical Education (CTE) Instructional Management system, which allows detailed analysis of performance from the state to the classroom level.

Great Teachers and Leaders

NC has demonstrated a broad commitment to strengthening the educator workforce, as evidenced by a broad array of initiatives ranging from incentives for college students who commit to teach in NC, to professional development for all teachers, to support for teachers who pursue National Board certification. Some of these major initiatives are described here:

- *NC Teaching Fellows and Principal Fellows Programs.* The Fellows programs provide scholarships to outstanding NC high school seniors who agree to teach for four years in NC following graduation from college, as well as to aspiring administrators. Fellows are employed in all of NC's 100 counties.
- *NCEES.* The new, development-oriented NC Educator Evaluation System (NCEES) aligns with multiple state-level goals and values, reflecting the complexity of education in the 21st century by emphasizing the roles of leadership, teamwork and collaboration, higher-order thinking, authentic assessment, and technology-infused learning. More details about NCEES can be found in Section D2.
- *UNC System Teacher Preparation Program Revisions.* Teacher Preparation Programs at every UNC System school recently completed a revision process that aligns their programs with not only NC's new standards for teacher education programs, but also the NCEES. In addition, UNC has developed teacher production targets in high-need areas such as mathematics, science, and special education.
- *Professional Development*. State-supported professional development opportunities include content and pedagogical opportunities offered by a host of providers such as: the NC Teacher Academy, NC Center for the Advancement of Teaching, and the online LEARN NC programs, which have reached thousands of teachers; the NC Mathematics and Science Education Network, the NC State University Science House, and the Kenan Fellows Program, which specialize in professional development in the STEM content areas; and NC New Schools Project, All Kinds of Minds, and the Hill Center, which provide targeted assistance for a variety of teaching and learning circumstances. More details are provided in Section D5.
- *Teacher Working Conditions (TWC) Survey*. Administered biennially since 2002 and completed by nearly 90% of NC's educators,

the TWC survey informs school improvement and the implementation of statewide teacher, principal, and superintendent standards and assessment processes. A new Student Learning Conditions Survey is being added to provide another data set to inform school improvement.

- *Educator Incentives*. NC supports multiple incentive programs tied to improvement of student achievement, including: 1) support to teachers who seek advanced certification through the National Board for Professional Teaching Standards (more than10% of all teachers in the state are National Board Certified Teachers and receive a 12% salary supplement); 2) financial incentives for staff in schools that meet or exceed expected student achievement growth via the ABCs Program, which has been in place since 1996 (described in greater detail in Section D2); and 3) a number of USED-funded Teacher Incentive Fund (TIF) programs that collectively reach nearly one-quarter of all teachers in NC. Current program components include incentives for student performance, leadership, relocation to hard-to-staff schools, and other measures.

Federal, state, local, and private foundation grant funds are used to support the wide range of teacher and principal initiatives in NC. These funds include a $66 million Teacher Quality Grant, Troops to Teachers program funding, IDEA funds, and state funding, along with funding from the Gates Foundation, Burroughs Wellcome Foundation, Golden LEAF foundation, and others for many of the programs listed above.

Turning Around the Lowest-Achieving Schools

NCDPI houses a District and School Transformation (DST) division, created to provide support for all NC schools and districts to increase student achievement and reduce dropouts. The School Turnaround Program provides training, support, and coaching in research-based practices to school leaders and teachers. Overall, student performance in DST-assisted schools and districts has increased dramatically, *e.g.*, almost half of the 66 participating high schools have already improved rapidly enough to exit "turnaround status." DST is funded by coordinated use of State and federal ARRA and ESEA funding. More details of NC's turnaround efforts and successes are provided in Section E.

A.3.ii. Improving Student Outcomes Overall and by Student Subgroup

Increasing student achievement in reading/language arts and mathematics, on both the NAEP and the assessments required under the ESEA (See Appendix 7 for detailed achievement data.)

The efforts described above, and related prior efforts, have led to measurable positive results in many areas of student achievement. On traditional measurements such as SAT scores, NC has exhibited steady gains for many years, reducing the gap between the state's overall scores and the national average from 30 points in 1999 to only 10 points in 2009 (Figure 1), even as the number and diversity of test-takers in the state continues to increase (Public School Forum of NC, 2009).

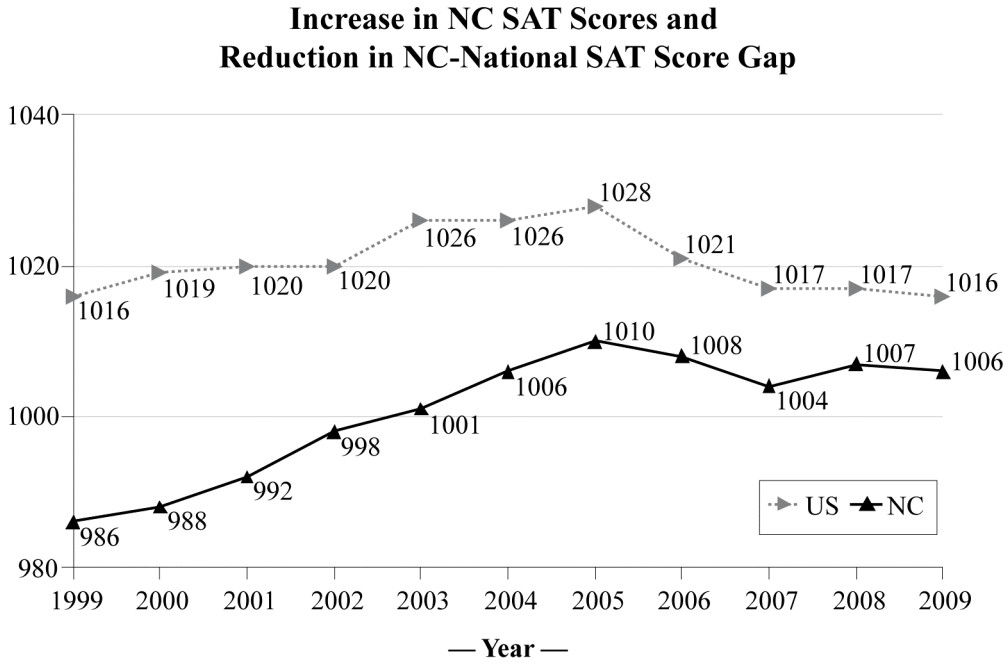

Figure 1: Increase in NC SAT Scores and Reduction in NC-National SAT Score Gap

In addition, more than 1 in 6 (17.3%) of all graduates earned at least a 3 or higher on at least one AP exam in 2008 (compared to a national average of about 15%), and NC students outperform the nation on many STEM SAT subject tests, as shown in Table 4.

Table 4: Average Subject Test Scores in STEM Subjects, NC and US

SUBJECT AREA	NC MEAN SCORE	NATIONAL MEAN SCORE	DIFFERENCE
Math Level 1	597	590	**7**
Math Level 2	681	636	**45**
Biology-E	629	596	**33**
Biology-M	669	643	**26**
Chemistry	658	625	**33**
Physics	685	641	**44**

NC National Assessment of Educational Programs (NAEP) math score trends also demonstrate consistent upward movement, with NC's average scores on grade 4 and 8 tests surpassing the nation's over the course of the past 15 years (Figure 2).

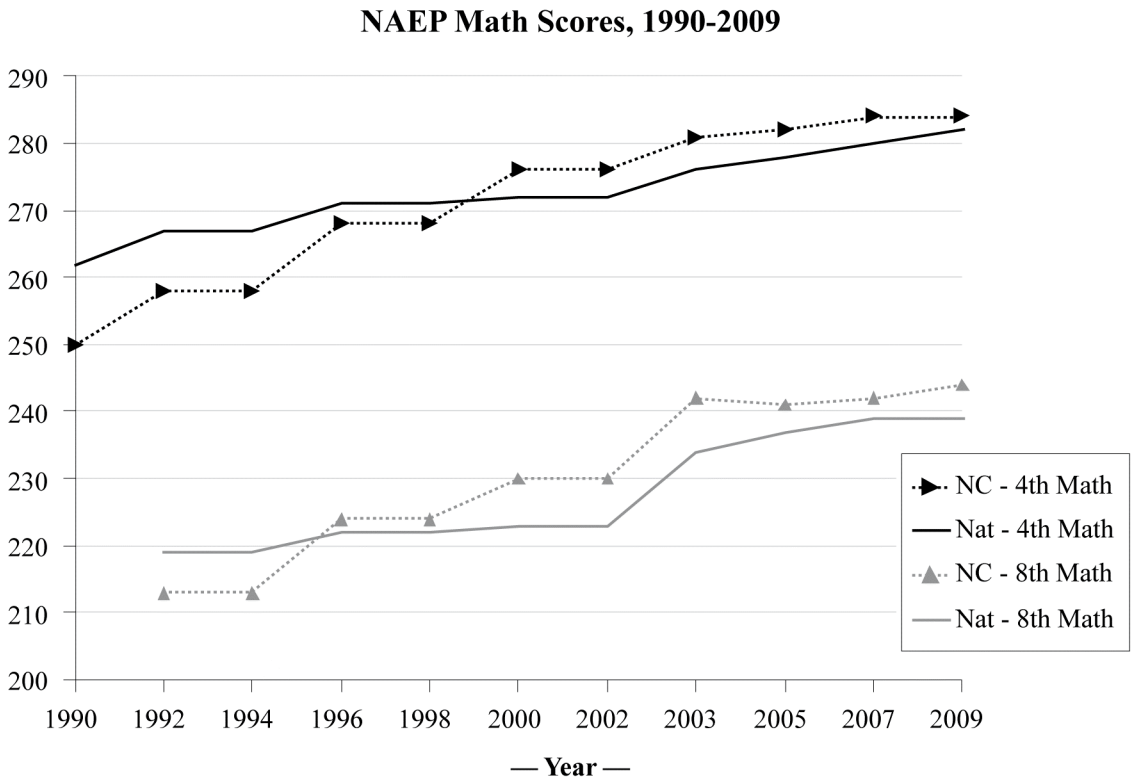

Figure 2: NAEP Math Scores, NC and Nation

Progress in NC NAEP reading scores has been less consistent, but has for the most part tracked the national average (Figure 3).

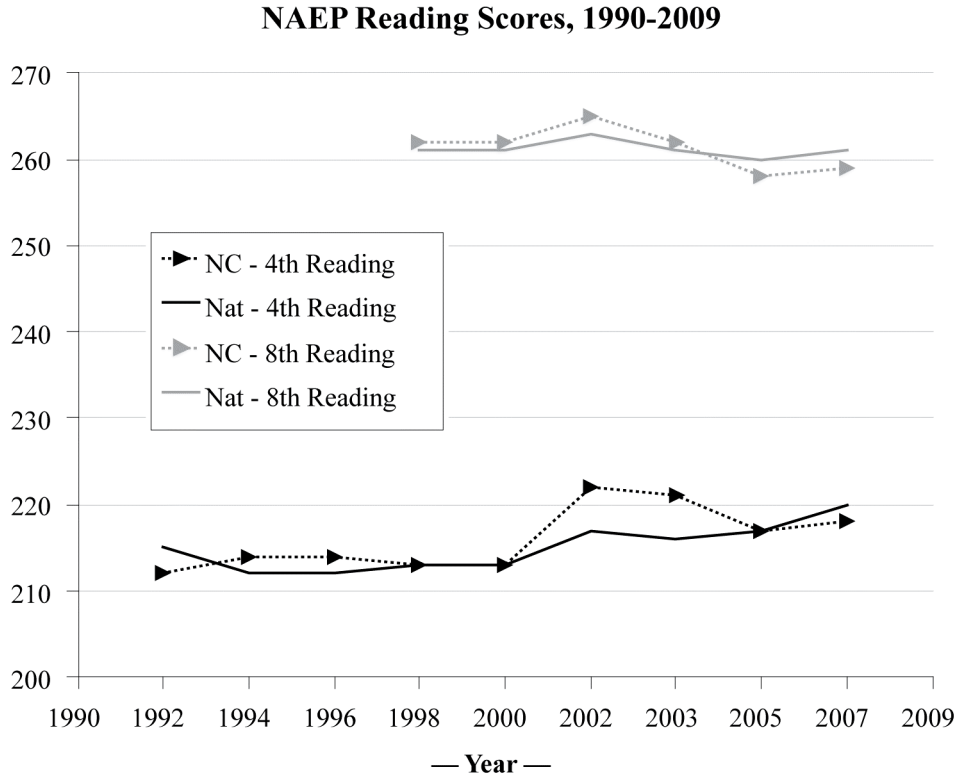

Figure 3: NAEP Reading Scores, NC and Nation

Similarly, trends on NC's end-of-grade and end-of-course tests are consistently positive, though recent implementation of more rigorous standards in both math (2005-06) and reading (2007-08) limit the ability to make comparisons across all years. Even so, positive responses to the more rigorous standards are evident after as little as one academic year after the implementation of new, more rigorous assessments for the 2005-06 school year in mathematics and the 2007-08 school year in reading (Figure 4).

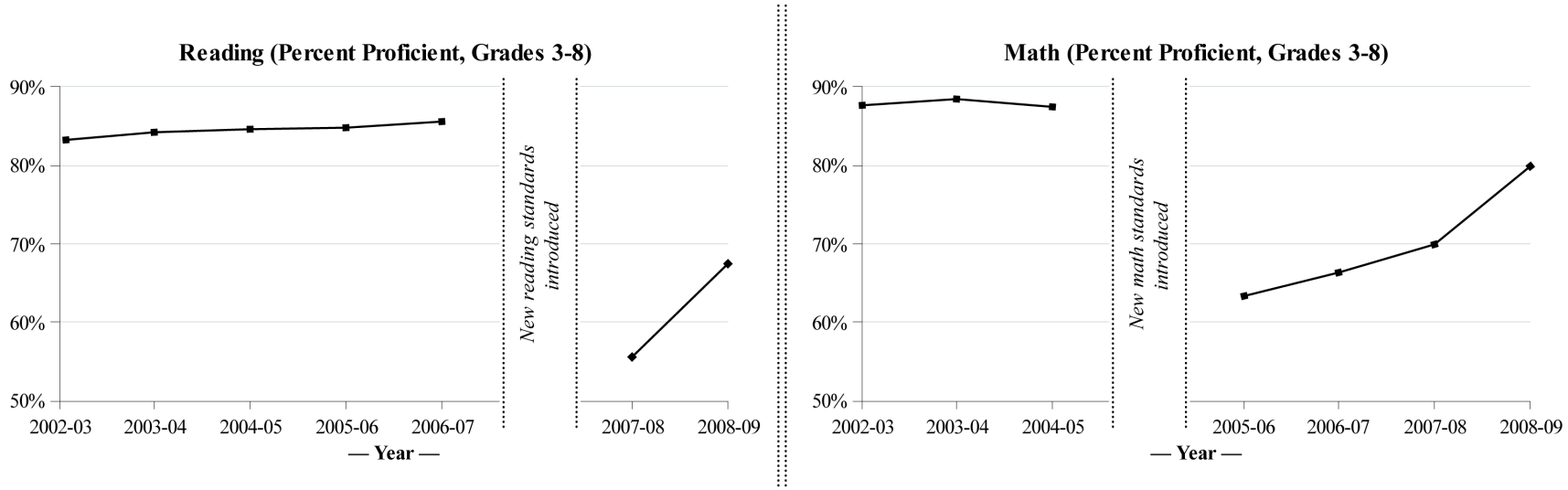

Figure 4: Rapid Responses to Increases in Rigor of NC Math and Reading Standards

Decreasing achievement gaps between subgroups in reading/language arts and mathematics, on both the NAEP and the assessments required under the ESEA

In addition to the initiatives described above addressing the *RttT* assurance areas, NC has dedicated significant resources to reducing achievement gaps among student groups. While these efforts have generated some positive results, achievement gaps remains a concern for NC. Frequently, progress on closing achievement gaps evident in state end-of-grade and end-of-course testing experiences a setback when new achievement targets or more rigorous assessments (such as the recent increases in the rigor of math and reading standards, noted above) are adopted. In almost all cases, however, after an initial increase in gaps, progress toward gap closure resumes within an academic year, as exemplified by gap measures for grade 3-8 math scores. (Figure 5)

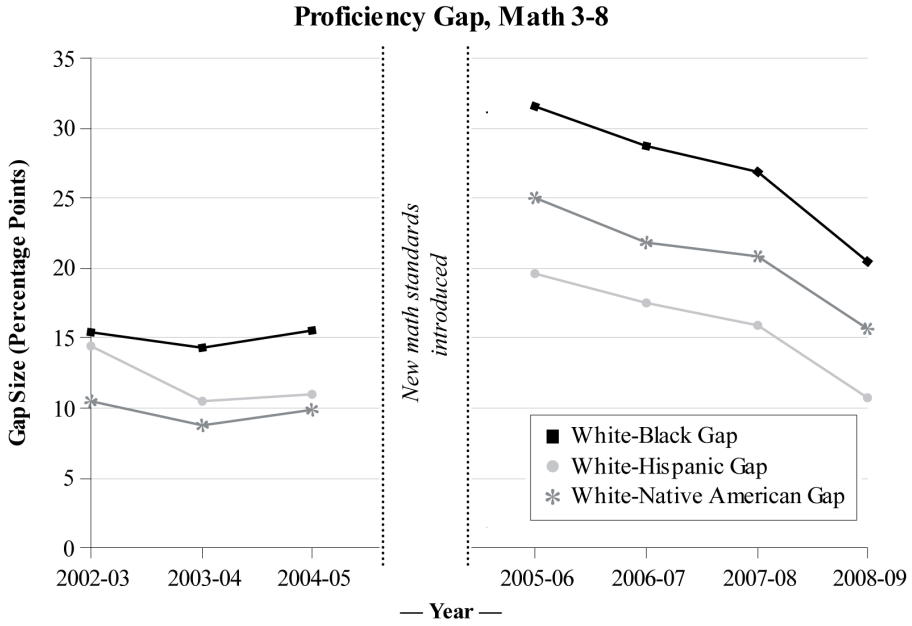

Figure 5. Gap Closure after Introduction of New Standards, Math, Grades 3 Through 8

Even more promising is evidence of the positive impact that NC's Early College High Schools are having on the achievement gap. A federally funded experimental study of NC's Early Colleges shows that the model has eliminated the white/minority course-taking gap in Algebra I (Julie Edmunds, SERVE Center, personal communication). By the end of grade 9 grade, 75.5% of underrepresented minority students and 74.8% of white students in the Early Colleges had successfully completed Algebra I, compared to 54.9% of underrepresented minority students and 61.2% of white students in a control group.

These positive trends have not yet manifested as consistently in NC's NAEP scores, which continue to suggest persistent gaps between scores for white students and scores for students in other sub-groups, even though scores for all sub-groups continue to trend higher (see Appendix 7).

Increasing high school graduation rates

Perhaps the most telling results of the many reforms NC has undertaken over the past several years are the steady increases in graduation rates overall and across almost all student group sub-groups. While there is much work still to be done, especially with NC's burgeoning limited English proficiency population, the trends evident in Table 5 suggest that the many NC and local efforts described above are having a positive impact across all student groups with one exception. The number of limited English proficient students is growing quickly in NC, so the decrease in graduate rate for this group reflects both the changing population and the need for further efforts in this area.

Table 5: Four-Year Graduation Rate

GRADUATION YEAR	NC Mean Score	White	Black	Hispanic	Asian	Native American	Multi-Racial	Economically Disadvantaged	Limited English Proficient	Stuents With Disabilities
2006	68.3%	73.5%	60.4%	52.3%	75.2%	51.1%	66.0%	55.6%	55.0%	50.0%
2007	69.5%	75.0%	61.4%	53.7%	78.9%	55.6%	65.4%	66.0%	52.1%	49.5%
2008	70.3%	75.7%	62.7%	56.4%	81.0%	53.8%	68.4%	59.2%	49.9%	56.6%
2009	71.7%	77.7%	63.2%	58.9%	83.6%	60.0%	71.5%	61.8%	52.1%	56.8%
Total change	**+3.4**	**+4.2**	**+2.8**	**+6.6**	**+8.4**	**+8.9**	**+5.5**	**+6.2**	**-2.9**	**+6.8**

(B) Standards and Assessments (70 total points)

State Reform Conditions Criteria

(B)(1) Developing and adopting common standards *(40 points)*

The extent to which the State has demonstrated its commitment to adopting a common set of high-quality standards, evidenced by (as set forth in Appendix B)—

(i) The State's participation in a consortium of States that— *(20 points)*

(a) Is working toward jointly developing and adopting a common set of K-12 standards (as defined in this notice) that are supported by evidence that they are internationally benchmarked and build toward college and career readiness by the time of high school graduation; and

(b) Includes a significant number of States; and

(ii) — *(20 points)*

(a) For Phase 1 applications, the State's high-quality plan demonstrating its commitment to and progress toward adopting a common set of K-12 standards (as defined in this notice) by August 2, 2010, or, at a minimum, by a later date in 2010 specified by the State, and to implementing the standards thereafter in a well-planned way; or

(b) For Phase 2 applications, the State's adoption of a common set of K-12 standards (as defined in this notice) by August 2, 2010, or, at a minimum, by a later date in 2010 specified by the State in a high-quality plan toward which the State has made significant progress, and its commitment to implementing the standards thereafter in a well-planned way.[1]

In the text box below, the State shall describe its current status in meeting the criterion. The narrative or attachments shall also include, at a minimum, the evidence listed below, and how each piece of evidence demonstrates the State's success in meeting the criterion. The narrative and attachments may also include any additional information the State believes will be helpful to peer

[1] Phase 2 applicants addressing selection criterion (B1ii) may amend their June 1, 2010 application submission through August 2, 2010 by submitting evidence of adopting common standards after June 1, 2010.

reviewers. For attachments included in the Appendix, note in the narrative the location where the attachments can be found.

Evidence for (B)(1)(i):

- A copy of the Memorandum of Agreement, executed by the State, showing that it is part of a standards consortium.
- A copy of the final standards or, if the standards are not yet final, a copy of the draft standards and anticipated date for completing the standards.
- Documentation that the standards are or will be internationally benchmarked and that, when well-implemented, will help to ensure that students are prepared for college and careers.
- The number of States participating in the standards consortium and the list of these States.

Evidence for (B)(1)(ii):

For Phase 1 applicants:

- A description of the legal process in the State for adopting standards, and the State's plan, current progress, and timeframe for adoption.

For Phase 2 applicants:

- Evidence that the State has adopted the standards. Or, if the State has not yet adopted the standards, a description of the legal process in the State for adopting standards and the State's plan, current progress, and timeframe for adoption.

Recommended maximum response length: Two pages

B.1.i. Developing and adopting common standards in a consortium of States

Commitment to Common Core Standards

NC is a committed participant in, and signatory to, the *Common Core State Standards Initiative*, a consortium to develop and adopt shared state standards in K-12 Mathematics and English. This consortium is led by the National Governors' Association for Best Practices (NGA) and the Council of Chief State School Officers (CCSSO) and includes 48 states. On January 13, 2010, Governor Perdue directed the State Board of Education, UNC Board of Governors, NC Independent Universities and Colleges and the NC Community College Board to develop a process for adopting the National Common Core Standards Career and College Standards as part of her Career and College: Ready Set Go Education Agenda. A copy of the Standards Consortium Memorandum of Agreement, the list of participating states and a draft of one section of each of the English Language Arts (ELA) and Mathematics standards can be found in Appendices 8, 9,10, and 11.

NC has demonstrated commitment to raising and clarifying standards, as evidenced by the Governor's Blue Ribbon Commission on Assessment and Accountability (NC Blue Ribbon Commission, 2008b) recommendations and the follow-up action plan by the State Board of Education (SBE), *A Framework For Change* (NC Blue Ribbon Commission, 2008a) (see Appendix 12 for a section of this document). This work led to NC's five-year Accountability and Curriculum Reform Effort (ACRE), which includes the revision of all NC standards to focus on deeper Essential Standards and demonstrates NC's commitment to internationally benchmarked, "fewer, clearer, and higher" standards. Additionally, NC is motivated by the transformative advantages that *shared* standards offer, including national equity, aligned professional development, potential economies of scale around curriculum and assessment, comparable student achievement data, and the resulting opportunity to determine what truly works across the country.

NC has actively provided feedback to the consortium to ensure that the Common Core writing teams have the benefit of what NC has learned in its work revising the current standard course of study to focus on Essential Standards. For example, Dr. Jere Confrey, a leading researcher at NC State University (NCSU) on mathematics learning trajectories and a member of the NC Mathematics

standards team, is serving on the Common Core validation committee, and the NC Essential Standards work on applying research on mathematics learning trajectories has influenced the Common Core work.

Our confidence that the Common Core will establish a high bar defining the most important student outcomes is supported by evidence that the standards are on par with international expectations and will produce high school graduates ready for college and career. The consortium is using exemplar state standards to inform the writing process and has convened a strong group of experts to draft, revise and validate the Common Core standards. As described in documentation provided by CCSSO (see Appendix 13), Common Core standards are internationally benchmarked and, when well implemented, will lead to college and career readiness.

B.1.ii. Plan to develop and adopt common standards

NC anticipates adopting the Common Core standards verbatim and seamlessly integrating them into the ongoing ACRE work, with its three-fold focus on improved standards, comprehensive assessment, and a next-generation state accountability model. The SBE has documented its commitment to the Common Core standards and has the authority to adopt content standards as granted by NC General Statute 115C-12 (9c), described in Appendix 14. The Governor's Education Cabinet and key legislative leaders have indicated support for the common core standards as well. NC may consider supplementing the Common Core with additional standards, up to 15% as allowed by the consortium, but will ensure that additions are parsimonious and have a strong rationale. We will gather feedback from NC stakeholders prior to final adoption to ensure buy-in from the key constituents. We also recognize that these new standards are necessary but not sufficient to significantly improve achievement and close achievement gaps; therefore, NC will focus on a strategic roll-out and professional development plan as outlined in B3, C3, and D5.

Table 6: Timeline for Common Core Adoption

DATE	ACTIONS
Aug - Nov 2009	• Presented overview of Common Core adoption time line to the SBE; and • Reviewed and provided feedback to consortium on college- and career-readiness standards.
Dec 2009	• Provided feedback to CCSSO on NC-only **Draft** versions of K-12 Math and ELA Common Core standards; and • Added information on the Common Core Standards to the NCDPI website.
Jan 2010	• After public release of Common Core **Draft** versions of K-12 Math and ELA: ◦ Post links of draft versions to all LEAs, IHEs and Education Associations via listservs and post to NCDPI public website; ◦ Establish commoncore@dpi.state.nc.us to receive, consolidate, and send stakeholder feedback to CCSSO; and ◦ Post Common Core adoption plan on NCDPI website.
Feb 2010	• *Final validation anticipated by the end of February 2010. We will adjust our time line if the release of the final standards is delayed;* • Develop and disseminate *Common Core in NC* presentation plan, key points, and slides developed for external presentations across NC; • Begin collaboration with other states to develop increasingly clear and detailed shared understanding of what students must know and be able to do and detailed instructional support materials for Common Core standards. See (B3) for more information; and • Using NC work on Essential Standards, begin identifying any additional content (15%) to be added to Common Core.
Mar - Apr 2010	• Present Common Core standards **Final** versions to the SBE and reiterate timeline and strategy for adoption; • Develop cross-walks between current NC Math and ELA standards and the Common Core; • Convene K-12 Math standards writing team to identify and discuss, as necessary, any additional content to include, not exceeding 15% of total; • Convene ELA standards writing team to identify and discuss, as necessary, any additional content to include, not exceeding 15% of total; and • Begin detailed design of professional development plan for Common Core roll-out and integration with ACRE project.
Apr 2010	• Release Common Core standards and any additional content (85% + 15%) for public comment.
May 2010	• Incorporate public comment relative to additional 15%.
Jun 2010	• Present Common Core standards in Math and ELA to the SBE for **Discussion**.
Jul 2010	• Present Common Core Standards to the SBE for **Action**.
Aug 2010	• Kick-off Common Core roll-out and professional development plan. See B3 for more details.

(B2) Developing and implementing common, high-quality assessments *(10 points)*

The extent to which the State has demonstrated its commitment to improving the quality of its assessments, evidenced by (as set forth in Appendix B) the State's participation in a consortium of States that—

(i) Is working toward jointly developing and implementing common, high-quality assessments (as defined in this notice) aligned with the consortium's common set of K-12 standards (as defined in this notice); and

(ii) Includes a significant number of States.

In the text box below, the State shall describe its current status in meeting the criterion. The narrative or attachments shall also include, at a minimum, the evidence listed below, and how each piece of evidence demonstrates the State's success in meeting the criterion. The narrative and attachments may also include any additional information the State believes will be helpful to peer reviewers. For attachments included in the Appendix, note in the narrative the location where the attachments can be found.

Evidence for (B2):

- A copy of the Memorandum of Agreement, executed by the State, showing that it is part of a consortium that intends to develop high-quality assessments (as defined in this notice) aligned with the consortium's common set of K-12 standards; or documentation that the State's consortium has applied, or intends to apply, for a grant through the separate Race to the Top Assessment Program (to be described in a subsequent notice); or other evidence of the State's plan to develop and adopt common, high-quality assessments (as defined in this notice).
- The number of States participating in the assessment consortium and the list of these States.

Recommended maximum response length: One page

B.2.i. and B.2.ii. Jointly developing and implementing assessments with a significant number of states

NC is committed to working in collaboration with other states and national organizations to develop common assessments to measure the Common Core standards. On January 6, 2010 the NC State Board of Education approved the following resolution: "The North Carolina State Board of Education endorses North Carolina working in collaboration with other states on formative, benchmark, diagnostic and summative assessments based on Common Core standards." See Appendix 15 for Resolution.

NC is already engaged in the American Diploma Project's Assessment Consortium, working with 14 other states to establish common Algebra I and Algebra II assessments. The resulting end-of-course exams represent the largest multistate common assessment effort ever undertaken (Achieve, 2009). See Appendix 16 for ADP contract.

NC plans to collaborate with other states in developing common assessments and, as part of a consortium, to apply for the *RttT* summative assessment grant. North Carolina is a member of three assessment consortia-the Common Core Assessment Consortium, the Council of Chief State School Officers Balanced Assessment Consortium, and the Achieve Consortium. Newly developed common assessments will align to the new English Language Arts and Mathematics Common Core standards. Our consortia are proposing a system of summative, formative, and interim assessments closely related to the vision proposed in Section C3 of our *RttT* application. See Appendix 17 and Appendix 18 for a copy of the signed consortia agreements and Appendix 19 for a list of participating states.

Currently, NC is piloting new grade 3 formative/diagnostic assessments, utilizing wireless/handheld technologies. The use of handheld technologies with a three-tiered assessment approach will be explored in collaboration with other states. In addition, we will participate in the Accessible Portable Item Protocol Project, which is developing common standards and a tagging system for test items so they can be used across multiple online delivery systems and, most importantly, are compatible with systems that provide alternative presentations (*e.g.*, spoken, enlarged text) of test items for students with special needs. We are aware that other assessment consortia are being planned, and will carefully analyze the options to determine which ones NC will join.

Reform Plan Criteria

(B3) Supporting the transition to enhanced standards and high-quality assessments *(20 points)*

The extent to which the State, in collaboration with its participating LEAs (as defined in this notice), has a high-quality plan for supporting a statewide transition to and implementation of internationally benchmarked K-12 standards that build toward college and career readiness by the time of high school graduation, and high-quality assessments (as defined in this notice) tied to these standards. State or LEA activities might, for example, include: developing a rollout plan for the standards together with all of their supporting components; in cooperation with the State's institutions of higher education, aligning high school exit criteria and college entrance requirements with the new standards and assessments; developing or acquiring, disseminating, and implementing high-quality instructional materials and assessments (including, for example, formative and interim assessments (both as defined in this notice)); developing or acquiring and delivering high-quality professional development to support the transition to new standards and assessments; and engaging in other strategies that translate the standards and information from assessments into classroom practice for all students, including high-need students (as defined in this notice).

The State shall provide its plan for this criterion in the text box below. The plan should include, at a minimum, the goals, activities, timelines, and responsible parties (see Reform Plan Criteria elements in Application Instructions or Section XII, Application Requirements (e), for further detail). Any supporting evidence the State believes will be helpful to peer reviewers must be described and, where relevant, included in the Appendix. For attachments included in the Appendix, note in the narrative the location where the attachments can be found.

Recommended maximum response length: Eight pages

B.3. Supporting the transition to enhanced standards and high-quality assessments

While the improvements in the actual standards and assessments are an essential step, their impact depends upon the beliefs, knowledge, and skills of educators in implementing these standards and assessments and applying them to improve instruction. NC's goals around implementation of standards and assessments focus largely on professional development and learning tools to shape teachers' and administrators' beliefs, knowledge, and skills in ways that will lead to improved student achievement.

Goals for Transition to the New Standards and Assessments

1. Build and reinforce educators' and stakeholders' belief that the new standards will improve student outcomes;
2. Ensure every teacher in NC has a deep, specific understanding of the standards and can implement them to improve student outcomes;
3. As part of instituting a comprehensive assessment system, mitigate the "teaching to the test" phenomenon, ensure summative test data are used effectively, and ensure schools are ready to move swiftly to a digital assessment environment; and
4. Align high school exit criteria and college-entrance requirements to the new standards.

Because the new standards will be shared across the Common Core consortium, unprecedented opportunities for cross-state collaboration will emerge in the development and delivery of tools and training to achieve the goals listed above and ultimately to achieve the high bar of the new standards. NC recognizes the power of sharing the fiscal and intellectual responsibility of the transition to new standards and is committed to partnering with other states to develop aligned curricular and assessment tools and shared professional development resources. NC will use the technology platform described in this proposal in support of implementation of the activities aligned to the transitional goals above.

The transition to new standards in NC is not limited to the English Language Arts (ELA) and Mathematics standards and assessments aligned to the Common Core. NC is revising K-12 standards and assessments in all other subject areas to focus on internationally benchmarked expectations and college and career readiness as part of ACRE. Combining the transition to the

Common Core in ELA and Math and the ACRE initiative positions NC to make a truly sweeping and transformative change in schools and classrooms.

NC will carefully monitor and document progress toward the achievement of each of the following goals for transition to the new standards and assessments.

Goal 1. Build and reinforce educators' and stakeholders' belief that the new standards will improve student outcomes.

Teachers, school staff, parents, administrators, advocacy groups, education organizations, and business and university partners must understand that achievement of the new standards will substantially benefit students and will prepare them for success in college and in the workforce. To transform educational practices and policies, and thereby achievement, NC will prepare a communication plan to build stakeholder engagement in and commitment to the Common Core. Key parts of this communication plan will include:

- *A clear message.* A message(s) about why the new standards matter that is emotionally and intellectually compelling and tells a story important to schools, teachers, and students on a personal level. The message will be student-focused, centered on the "fewer, clearer, and higher" criteria and the international benchmarking that is central to the work of the consortium;
- *Tools for understanding.* School personnel, particularly grade- and subject-level teachers, will be provided tools and professional development to ensure they understand high-level changes relative to the current NC standards and enable them to drill into the content for detailed understanding of the expectations and the rationale for these expectations; and
- *A communications schedule and media tools.* NC will develop a detailed communication schedule identifying opportunities to build knowledge and investment among key audiences, using a variety of approaches including conference presentations, webinars, websites, resources to support local presentations, and public service announcements.

Goal 2. Ensure every teacher in NC has a deep, specific understanding of the standards and can implement them to improve student outcomes.

The new standards are intended to give a teacher a clear sense in a few pages of what a student in the classroom must know and be able to do. While standards gain power and usability from their conciseness, teachers must understand them at a deep, specific level that influences their instruction. In order to teach the new standards, a teacher must:

- *Identify* the pre-requisite knowledge and skills that are key to mastery of a standard or a grade-level set of standards;
- *Explain* the standard in student-friendly language and make simple and compelling arguments to students as to why the standard matters;
- *Connect* the standard to knowledge and skills that a student will learn in future grades or courses;
- *Unpack* the standards into smaller, more digestible knowledge and skills around which to build lessons;
- *Know and plan* for common student mistakes or likely misunderstandings;
- *Connect and apply* standards within the context of other subject areas;
- *Understand* specifically how new standards differ from previous standards in scope and sequence and how previous methods, lessons, units, projects, *etc.*, may need to be adapted;
- *Design or make use* of multiple formal and informal assessments that reliably and validly assess student mastery of standards and diagnose need relative to the standard; and
- *Create plans***,** long-term, unit and daily, that lead students to mastery of the standards.

Preparing teachers to meet these requirements is a central goal of the professional development activities described in Section D5, and the activities described below will be integrated into the overall professional development implementation and budget planning.

Activities to achieve Goal 2 fall into three categories: professional development (Table 7); instructional resource development and dissemination (Table 8); and incorporation of new standards into NC teacher training programs. NC will take a blended

approach with both onsite (face-to-face) and online (virtual) professional development concerning the new standards. Professional development will be differentiated based on role. While objectives will overlap, principal and instructional lead training will focus on management and coaching of teachers under new standards, while teacher training will focus on effective instruction and achieving mastery of the standards.

Broad categories for transition training to be included are in the table below.

Table 7: Standards Transition - Professional Development

TRAINING CATEGORY	ESSENTIAL QUESTION
Introducing The Common Core	What will a student graduating under the common core know and be able to do? What is different in these standards and why is it better for students in NC?
Preparing To Transition	What tools and lessons that were used previously are still applicable, what has been excluded and what new content do the new standards require?
Unpacking Common Core Content	How will educators unpack the content of the standards and what do they really mean a student will know and be able to do?
The Common Core and Assessment	How will educators assess the new standards within the classroom? How should educators expect the new standards to be assessed on state-wide summative assessments?
Leveraging the Common Core	What Common Core-aligned resources are being developed by other consortium states that educators can use to improve student achievement?
Sequencing the Common Core	How will educators develop pacing guides for the Common Core?

Additionally, NC will provision schools with particular tools to aid in the transition and to compliment professional development. Again, NC will look to work with consortia in developing instructional tools. These tools will be delivered via a continually updated *online clearinghouse of instructional resources* developed across the consortium and aligned to the Common Core. Some key components to be included are in the Table 8 below.

Table 8: Standards Transition - Instructional Resources

RESOURCE	PURPOSE
Crosswalk Documents and Resource Transition Guides (per course or grade level)	Compare 2003 and Common Core standards in a side-by-side fashion to help teachers plan transition. Will allow LEAs to determine how to leverage existing instructional and curricular materials towards achieving new standards and identifying any gaps in resources
Glossary of Terms	Define terms used in Common Core that need specification and elaboration
Unpacked Content	Clarify and break standards into sub-objectives and illustrate key, specific components of what standards mean a student will know and be able to do
Rich Examples of Assessment Tasks and Items	Make standards tangible and measurable. Will be linked to formative/interim assessment tools as outlined in B2 and C). A rich and extensive set of items requiring authentic, complex performances aligned to new standards will reinforce teaching the standards to their intended level of deep mastery and move teachers away from teaching to a particular test or item-type
Graphic Organizer (per course or grade level)	Visually represent "big picture" of how grade-level or course knowledge fits together, including zooming out to see "map" of standards and making clear the vertical articulation of Common Core
Classroom Examples/Video Vignettes (for selected standards)	Teachers visualize classroom practices that would support students in learning Common Core standards
Learning Experiences/ Lesson Plans	Provide a set of high-quality instructional resource materials for use in teaching the new standards. Will require coordination across states and over time, linking NC teachers to the resources of all consortium states
Student Progress Monitoring and Analysis Tools	Provide teachers with tools to gather student achievement results from assessment tools and develop an increasingly reliable, actionable picture of student progress over time (See more in C3)
Pacing Guide Exemplars	Provide peer-reviewed pacing guide examples for new Common Core standards
Curricular Tools and Resources	Tools to connect teachers to effective Common Core standards-aligned curricula and adapt specific curricula to ensure student achievement of Common Core

NC's teacher training programs have submitted plans to align their preparation programs to the NC Educator Evaluation System (NCEES) and are currently executing those plans. Standard III of the evaluation tool requires that "Teachers know the content they teach." As part of the alignment to the evaluation tool, The NC Department of Public Instruction (NCDPI) will ensure that teacher preparation programs achieve the key objectives for implementing the Common Core and all enhanced standards as defined above in Goal 2. Teacher preparation programs will be required to ensure that all pre-service teachers are able to demonstrate the ability to effectively teach the standards, as measured by an assessment of student performance after pre-service teaching experiences.

Goal 3. As part of instituting a comprehensive assessment system, mitigate "teaching to the test," ensure summative test data are used effectively, and ensure schools are ready to move swiftly to a digital assessment environment.

Sections B2 and C3 describe the design and support of schools in implementing a formative and interim assessment system in support of the new standards. This section focuses only on key transition goals for our *RttT* initiative to move towards common, high-quality, statewide summative assessments aligned to enhanced standards. The three large subgoals for transition to new summative assessments are described below:

1. While maintaining NC's long track record of accountability for verifiable student achievement, mitigate the "teaching to the test" phenomenon and direct instruction towards teaching the standards to their true intended level of depth and complexity. NC envisions every teacher approaching the standards with a clear understanding that *"*In order to do well on the state test, my students must know the new grade level or subject standards so completely that they can correctly respond to any question aligned to content or skill in any context, including, but not limited to, the summative assessment.*"* This mindset is particularly important in low-performing schools where test scores are often a major focus and, at times, instructional methods are employed that are pointed at incremental gains on the test scores as opposed to ones directed at teaching the standards to the level of completeness and complexity that is required to have truly mastered them.

The planned activities to achieve this subgoal are:

- Provision of formative and interim assessment tools.

The standards-aligned formative, diagnostic, and interim assessment tools referenced in Sections B2 and C3 will provide teachers with a rich set of examples of the many ways in which a particular standard could be measured. Teachers will have a more complete understanding of the range of assessment items that could be aligned to any one standard and will therefore be less likely to focus on "types" of questions and instead on complete mastery of the content or skill; and

- Assessment Literacy professional development

In rolling out new summative assessments as part of a consortia, NC is committed to transparency. When appropriate, we will

release test-specific information (*e.g.*, test items, appropriate psychometric data, test guides). As part of professional development around the comprehensive assessment system, as outlined in Section C3, NC will ensure teachers understand key ideas of assessment literacy, use, and, most notably for this goal, the common misuses of summative assessments and data to inappropriately influence instructional practices and decisions.

2. Ensure summative assessment data are used effectively. Summative assessments can be used to great gain in the management, coaching, goal-setting, and creation of a results-driven school environment. In collaboration with other states in the common summative assessment consortium, NC will design analytical tools and training that:

- Enable principals, superintendents, and school leaders to identify gaps or strengths in teacher effectiveness, subject areas, or grade levels, student subgroups or particular standards and plan based on that analysis;
- Enable principals, superintendents, and school leaders to create a culture focused on student achievement results and continuous improvement in student outcomes;
- Enable teachers, in concert with the use of diagnostic, formative, and interim assessment tools, to analyze the accuracy and efficacy of those classroom assessments in providing accurate, ongoing instructional assessment data and to reflect on ultimate outcomes within his or her classroom; and
- Ensure parents, principals, and teachers understand what standardized test results mean (*e.g.*, the urgency and consequences if a student is not proficient or what actionable information can come from the test data and what supplemental information may be necessary to make the best decisions for students).

3. Ensure schools have the logistical and technical knowledge and skills to move rapidly to an online testing environment. NC anticipates that a comprehensive assessment system will be delivered via computer or other digital platform. The many advantages of this include efficiency, near-instantaneous results, cost-savings, more flexible data reports, real-time adaptations when necessary, and, most importantly, the prospective ability to gather data that **y**ield a more valid and reliable picture of student learning and progress over time.

NC will develop a best practices guide that includes case studies of schools using school-wide assessments or digital platforms. The guide will address issues of scheduling, school financial planning, and technical requirements in order to move to a non-paper-and-pencil assessment environment and will include authentic voices from schools with specific steps taken to build capacity.

Goal 4. Align high school exit criteria and college-entrance requirements to the new standards.

All students entering 9th grade in the 2009-10 NC school year are required to pass courses as outlined in NC's Future-Ready Core policy (GCS-N-004). The Future-Ready Core raised graduation requirements in NC such that all students must pass English I, II, III, and IV, and four math courses, including Algebra I, Geometry, Algebra II, and a higher-level mathematics course for which Algebra II is a prerequisite, or an equivalent series of courses.

These graduation requirements will apply to the ELA and Mathematics Common Core standards to be adopted in July 2010. The entirety of the 9-12 Common Core ELA standards will define the expectations for the English I, II, III, and IV courses as outlined in the policy. In Mathematics, the 9-12 Common Core standards will be entirely incorporated into the scope of the Algebra I/Geometry/Algebra II or Integrated Math I/II/II sequences. While some of the finer points of standards adoption in particular grade levels are yet to be determined by states and the consortium, NC is committed to ensuring *all expectations,* as outlined in the Common Core College and Career Readiness standards and the resulting K-12 ELA and Math standards, will be included in courses required for graduation and NC accountability model.

Additional accountability measures that are in place in NC may be adapted for the common summative assessments aligned to the Common Core. Currently, NC requires that all students score proficient on five required end-of-course tests to graduate and that 25% of their final grades come from the end-of-grade test score. The current policy on these student accountability measures will be reviewed as part of the implementation of a new assessment system and will be adapted appropriately.

NC K-12 and Institutes of Higher Education (IHE) will work in concert to ensure that the new summative assessments instituted will be meaningful and useful to IHEs in making entrance requirement decisions. NC is currently engaged in the work of revising its accountability model to include measures of achievement that are also meaningful to colleges and universities. Planned to be

finalized in the late spring of 2010, the new model is anticipated to include school accountability measures that include widely accepted college-entrance exams (*e.g.*, ACT or SAT).

Below in Table 9 is the high-level time line and responsible parties for implementation of the goals and activities above for transition to new standards and assessments.

Table 9: Standards Transition - Time Line and Responsible Parties

		2010			2011				2012			
Activity	**Responsible Party**	**Q2**	**Q3**	**Q4**	**Q1**	**Q2**	**Q3**	**Q4**	**Q1**	**Q2**	**Q3**	**Q4**
Anticipated adoption of the Common Core - Math and ELA **(July 2010)**	SBE and NCDPI											
Design of professional development tools, training and communication strategies (100% **Goal 1** activities and ~50% of **Goal 2** activities)	NCDPI, Consortium states with LEA input											
Design of professional development tools, training and communication strategies (additional 50% **Goal 2** activities)	NCDPI, Consortium states with LEA input											
Implementation of professional development tools, training and communication activities from **Goal 1**	Participating LEAs and NCDPI											
Implementation of professional development tools, training and communication activities from **Goal 2**	Participating LEAs and NCDPI											
Design of professional development tools, training and communication strategies from **Goal 3**	NCDPI, assessment consortium (if applicable) with LEA input											
Implementation of professional development tools, training and communication activities from **Goal 3**	Participating LEAs and NCDPI											
Alignment and Policy Updates relative to **Goal 4**	SBE and NCDPI											
New Common Core Standards operational	SBE and NCDPI											

Performance Measures Performance measures for this criterion are optional. If the State wishes to include performance measures, please enter them as rows in this table and, for each measure, provide annual targets in the columns provided.	Actual Data: Baseline (Current school year or most recent)	End of SY 2010-2011	End of SY 2011-2012	End of SY 2012-2013	End of SY 2013-2014
% of teachers responding agree/strongly agree to composite of affirmative statements within standardized survey regarding extent, usefulness and quality of Common Core standards professional development and teacher support tools in increasing student achievement. (Goal 1,2 and 3)	Baseline to be established with professional development effectiveness assessment tools	+8% from baseline	+8% from baseline	+8% from baseline	+8% from baseline
% of instructional support tools delivered on-time (to be outlined in operational time line to be developed in the design phase of high-level time line above). (Goal 1,2 and 3)		100%	100%	100%	100%
% of pre-service programs meeting established criteria for alignment of programs to the educator evaluation tool and institution of pre-service teacher assessment of effectiveness using student achievement measures. (Goal 4)	Currently aligning			90%	

Notes:
1) The above performance measures are process measures but are ultimately grounded in the student achievement measures in the larger application.
2) Budgeting for the goals and activities as outlined in this section are included in the global professional development budget connected to Section D5.
3) The operational goal in the time line assumes a summative assessment is in place for the standards so that schools and teachers are held accountable. We anticipate a 2012-13 operational date for schools included in *RttT* common summative assessment grant. If not part of a *RttT* assessment grant, NC is still committed to making the common core operational in 2012-13.

(C) Data Systems to Support Instruction ***(47 total points)***

State Reform Conditions Criteria

(C1) Fully implementing a statewide longitudinal data system *(24 points – 2 points per America COMPETES element)*

The extent to which the State has a statewide longitudinal data system that includes all of the America COMPETES Act elements (as defined in this notice).

In the text box below, the State shall describe which elements of the America COMPETES Act (as defined in this notice) are currently included in its statewide longitudinal data system.

Evidence:

- Documentation for each of the America COMPETES Act elements (as defined in this notice) that is included in the State's statewide longitudinal data system.

Recommended maximum response length: Two pages

C.1. Fully implementing a statewide longitudinal data system

With the assistance of a USED Institute of Education Sciences State Longitudinal Data System (SLDS) Cohort 2 grant, NCDPI is in the process of completing initial implementation of NC's P13 SLDS, the Common Education Data Analysis & Reporting System (CEDARS). CEDARS is composed of various NCDPI source data collection systems, a statewide student and staff unique identification system, a centralized data repository, and associated reporting and analysis (or "business intelligence") tools. Consistent with the description of an SLDS in the *America COMPETES Act*, CEDARS will support NC's efforts to use high-quality data about students, staff, programs, and finances to make policy and service decisions to improve student outcomes. Specifically, CEDARS will enable NC, local, and federal policy makers and service providers to analyze trends and relationships between various educational factors and student performance over time. As demonstrated in Table C.1 below, many of the elements of this P13 SLDS are already in place; all the elements will be completed by fall of 2010.

The NCDPI also has been working closely with NC's other education sectors and the Employment Security Commission to develop our first P20+ SLDS. The NCDPI recently submitted a proposal to USED requesting a P20 SLDS grant to support development of *NC P20+,* an SLDS that will include formal, statewide, collaborative governance and a technology infrastructure that will enhance accessibility, quality, interoperability, and use of shared data needed for sector-specific and statewide, cross-sector analysis and reporting (a copy of the executive summary of the proposal is located in Appendix 20. As illustrated in Table 10, many elements of NC P20+ are either in place or are in the process of being developed. The most critical elements already in place are the strong existing collaboration among the NC P20+ sectors and the statewide P13 Unique Student Identifier (UID).

Table 10: Status of the 12 *America COMPETES Act* SLDS Elements in NC

AMERICA COMPETES ACT ELEMENT	NC STATUS
1. A unique, statewide student ID that does not permit a student to be individually identified by users of the system (PK-16)	**NC has this capability in place.** As part of CEDARS, NCDPI has implemented a UID system. Currently, NCDPI is using the system to ensure that each student and staff person participating in programs overseen by the State Board of Education (SBE) (pre-K through early college high school, which sometimes involves a grade 13) is uniquely identified with a random number (i.e., not a Social Security Number (SSN)) used strictly for educational management, evaluation, and planning purposes. As one of the first steps toward implementing NC P20+ in the coming year, NC will use this same system to similarly identify students in all other NC education sectors.
2. Student-level enrollment, demographic, and program participation information (PK-16)	**All NC education sectors have the ability to produce this data.** NCDPI, the NC Community College System (NCCCS), and the UNC System have strong, centralized data collection and management systems in place. The NC Independent Colleges and Universities (NCICU) and NC Early Childhood Data Group (NCECDG), which represents a collaboration between various early childhood service agencies, are in the process of developing centralized collection systems, but can produce this data through coordination of distributed collection, management, and reporting mechanisms. As part of the NC P20+ proposal, NCICU and NCECDG will use SLDS grant funds to accelerate their efforts to develop centralized data collection systems.
3. Student-level information about the points at which students exit, transfer in, transfer out, drop out, or complete P-16 education programs (PK-16)	**All NC education sectors collect this data for their respective sectors.** These efforts will be improved and better coordinated across sectors as part of the effort to establish NC P20+.
4. The capacity to communicate with higher education data systems (PK-16)	**NC has this capacity.** The operational P13 Statewide UID system (established through CEDARS) enables all education sectors to access UIDs for students, subsequently enabling linkage of an individual student's records across sectors. Work remains to improve this data integration both within and across sectors by formalizing business and technology processes. This work is targeted as part of the NC P20+ initiative.

AMERICA COMPETES ACT ELEMENT	NC STATUS
5. A state data audit system assessing data quality, validity, and reliability (PK-16)	**This capability is in place, but is distributed, rather than centralized.** NCDPI, NCCCS, and UNC all implement independent processes and procedures for enforcing sector-specific data quality, validity, and reliability standards. As part of the NC P20+ initiative, all NC education sectors will collaborate to ensure the quality, validity, and reliability of the shared NC P20+ data set.
6. Yearly test records of individual students with respect to assessments under section 1111(b) of 1965 ESEA (PK-12)	**NCDPI collects these data.**
7. Information on students not tested, by grade and subject (PK-12)	**NCDPI collects this data.**
8. A teacher identifier system with the ability to match teachers to students (PK-12)	**NCDPI operates a statewide student information system, NCWISE, that captures for the P-13 environment every student and teacher in the NC public schools. Each teacher is associated with the classes/courses they teach; each student is associated with the classes/courses in which they are enrolled.** The student and staff UID System (see element 4, above), which interacts with NCWISE, ensures that each student and staff person captured therein is identified with a non-SSN UID. Together, NCWISE and the UID System enable the CEDARS data repository (operational in October 2010) to contain linkable, de-identified student and teacher data for use in analysis.
9. Student-level transcript info, including information on courses completed and grades earned (PK-12)	**The NCDPI-operated statewide student information system captures these data**, which are transferable both between LEAs and, through a partnership with the College Foundation of NC, between LEAs and NC Institutes of Higher Education.
10. Student-level college readiness test scores (PK-12)	**NCDPI procures from the College Board extensive SAT data for all NC students taking the SAT.** As part of efforts to meet the demands of the updated NC School Accountability Model, NCDPI will begin collecting other college and workforce readiness measures, such as ACT, Compass, Accuplacer, and WorkKeys results.
11. Data that provide information regarding the extent to which students transition successfully from secondary school to post-secondary education, including whether student enroll in remedial coursework (postsecondary)	**NCDPI, NCCCS, UNC, and NCESC collaborate on several standing tracking/reporting efforts (e.g., Freshman Performance Report, Common Follow-up System) that address these topics.** Through the NC P20+ development efforts, these information products will be further refined and/or expanded.
12. Data that provide other information determined necessary to address alignment and adequate preparation for success in post-secondary education	**Using data collected through existing systems, NC already has been enabling various studies, albeit through labor-intensive data-linking processes, aimed at securing this type of information.** Examples include studies relating K-12 program participation (e.g., special education, alternative learning, and innovative high school programs) and student demographic characteristics (e.g., low income) to student outcomes. With the statewide student UID System in place (as noted with respect to elements 1 and 4, above), NC now has an improved capacity to explore a wide variety of important questions aimed at improving policy and services. Better coordinating this work will be a primary focus of the effort to establish NC P20+.

Reform Plan Criteria

(C2) Accessing and using State data *(5 points)*

The extent to which the State has a high-quality plan to ensure that data from the State's statewide longitudinal data system are accessible to, and used to inform and engage, as appropriate, key stakeholders (*e.g.*, parents, students, teachers, principals, LEA leaders, community members, unions, researchers, and policymakers); and that the data support decision-makers in the continuous improvement of efforts in such areas as policy, instruction, operations, management, resource allocation, and overall effectiveness.[2]

The State shall provide its detailed plan for this criterion in the text box below. The plan should include, at a minimum, the goals, activities, timelines, and responsible parties (see Application Instructions or Section XII, Application Requirements (e), for further detail). Any supporting evidence the State believes will be helpful to peer reviewers must be described and, where relevant, included in the Appendix. For attachments included in the Appendix, note in the narrative the location where the attachments can be found.

Recommended maximum response length: Two pages

C.2. Accessing and using State data

Sector-Specific Data and Information Artifacts

All NC education sectors are committed to improving student learning and to collecting the data needed to establish the effectiveness of policies and practices, *i.e.*, to enabling true evidence-based decision-making by NC and local policy makers and service providers. In addition, most NC education sectors currently produce reports for their direct clients and for the public that are built on sector-specific demographic, program participation, and performance data. Some currently available examples from the K-12 arena include:

- **For LEAs.** The NC Department of Public Instruction (NCDPI) provides each LEA with access to several technology applications, which are used to scan and score standardized NC assessments and to manage testing and accountability data. One

[2] Successful applicants that receive Race to the Top grant awards will need to comply with the Family Educational Rights and Privacy Act (FERPA), including 34 CFR Part 99, as well as State and local requirements regarding privacy.

application enables LEAs to view current NC test results by student, classroom, school, and LEA. A separate application provides access to historical data by student, classroom, and LEA. All reports include statewide averages. NCDPI Regional Accountability Coordinators (RAC) work with each LEA testing office to analyze the data and to help the LEA administrators develop goals for the upcoming year;

- **For Teachers.** Since 1995-96, NC reading assessment results have included a Lexile reading score and, beginning in 2009-10, all NC mathematics results will contain a Quantile score. Lexiles are used for determining the complexity of text a student is able to successfully comprehend. A Quantile is a measure that determines a student's readiness to learn more advanced mathematical skills. They determine how likely a student is to successfully solve more complex problems if provided with targeted instruction. Using students' end-of-grade scores, Lexile/Quantile scores and other diagnostic information, teachers can effectively plan for whole-class instruction as well as ways to differentiate to provide appropriate supports as needed. During the instruction, teachers can then use formative assessments to collect evidence to continually determine what scaffolding is needed to help move learning forward and to adjust instruction based on the needs of students; and
- **For Parents and Students.** After each summative assessment, parents receive an Individual Student Report, which details how the student performed on the assessment. The report includes the student's scale score, achievement level, and percentile. In grades 3-8, tests are placed on a developmental scale so that parents can determine the growth a student makes relative to the previous grade level. Students and parents can use assessment data to set academic goals for the year, identify areas of weakness, develop strategies for reaching those goals, monitor their progress over the year using benchmark assessment data, and adjust as needed.

In Fall of 2010 the initial implementation of the CEDARS longitudinal data store and associated business intelligence tools will provide NC and each LEA with enhanced capability to access the above-mentioned data, plus other program and student data contained in NCDPI-source data collections. NCDPI and LEA staff will be trained to use CEDARS business intelligence tools to produce standard, *ad hoc* annual and longitudinal reports relating various program and performance data.

NCDPI will also finish in 2010 the piloting of an operational data store and business intelligence tool associated with the statewide student information system, NCWISE. Expanding this capability statewide will enable every LEA to produce standard and *ad hoc* reports using student data during the course of the school year. LEAs may use this capability to establish operational dashboards for monitoring school activities.

Cross-Sector Data Analysis and Information Artifacts

NC education sectors have a long history of sharing cross-sector data to assess student achievement, evaluate policies and practices, and inform decision-making. For example:

- Close working relationships between NC Early Childhood Data Group (NCECDG) entities and the NCDPI help both entities refine programs to promote school readiness and a smooth transition from early childhood programs to kindergarten;
- NCCCS (the NC Community College System) and UNC provide extensive performance feedback to high schools regarding how their graduates have performed in college;
- UNC provides similar feedback to all NC community colleges regarding their students who later attend NC universities; and
- UNC, NCCCS, and NCICU (NC Independent Colleges and Universities) work with the NC Employment Security Commission through the Common Follow-up System to relate educational experience to workforce participation and performance.

Another example of rigorous, action-oriented research using cross-sector data (described in greater detail in Section D4) is UNC's and NCDPI's recent collaboration on a study of teacher quality that tracks the impact on student learning at the elementary, middle, and secondary school levels of teachers trained by the various UNC colleges of education. UNC already is using the results of this study to guide modifications to the teacher preparation programs operating on its various campuses.

(C3) Using data to improve instruction *(18 points)*

The extent to which the State, in collaboration with its participating LEAs (as defined in this notice), has a high-quality plan to—

(i) Increase the acquisition, adoption, and use of local instructional improvement systems (as defined in this notice) that provide teachers, principals, and administrators with the information and resources they need to inform and improve their instructional practices, decision-making, and overall effectiveness;

(ii) Support participating LEAs (as defined in this notice) and schools that are using instructional improvement systems (as defined in this notice) in providing effective professional development to teachers, principals and administrators on how to use these systems and the resulting data to support continuous instructional improvement; and

(iii) Make the data from instructional improvement systems (as defined in this notice), together with statewide longitudinal data system data, available and accessible to researchers so that they have detailed information with which to evaluate the effectiveness of instructional materials, strategies, and approaches for educating different types of students (*e.g.*, students with disabilities, English language learners, students whose achievement is well below or above grade level).

The State shall provide its detailed plan for this criterion in the text box below. The plan should include, at a minimum, the goals, activities, timelines, and responsible parties (see Reform Plan Criteria elements in Application Instructions or Section XII, Application Requirements (e), for further detail). Any supporting evidence the State believes will be helpful to peer reviewers must be described and, where relevant, included in the Appendix. For attachments included in the Appendix, note the location where the attachment can be found.

Recommended maximum response length: Five pages

C.3. Using data to improve instruction

C.3.i. Increase the acquisition, adoption, and use of local instructional improvement systems

The focus of NC's use of data to improve instruction is a Comprehensive, Next-Generation Assessment System. This system will be based on a major, dynamic database available statewide and accessible and customizable by each LEA. This database tool is the foundation for support of instructional improvement across the disciplines through three types of assessment support: 1) capability to assess student learning and improve classroom instruction on a daily basis; 2) capability to provide cognitive diagnostic assessment based on learning trajectories; and 3) ability to monitor progress through the curriculum. The new, comprehensive system will include major innovations in data usage and technology support that will improve classroom interaction and discourse, assessment outcome reporting, leveraging of educational research, and interface design. Finally, the assessment system itself will be introduced and supported through integrated professional development (discussed more fully in Section D5) to build instructors' and administrators' proficiency in using the different assessment approaches to improve instruction in each LEA.

A major objective of the NC *RttT* proposal is to improve student outcomes through better-informed instructional practices designed to meet the needs of all students. Throughout this document, NC's ongoing efforts to improve state content standards, summative assessments, data use, and teacher effectiveness are addressed. Broadening the use of assessment to support all students' learning and to accelerate instructional improvement is a critical component of our approach.

Properly designed assessments can support instructional improvement in manifold ways, informing teachers about their students' learning and achievement on multiple levels and opening a window to curricular progress and effectiveness for teachers and schools, all through timely feedback to teachers, students, and administrators. Standing in sharp contrast to this potential, however, are current-generation assessment tools, which are not designed to provide teachers with sufficient feedback and guidance to improve instructional practice. End-of-year summative assessments, while necessary to certify, document, and monitor student achievement, provide only annual snapshots of achievement. Current benchmarking systems too often act only as mini-summative tests and are poorly coordinated

with curricula. Absent from this system are strategic means to support local instructional improvement.

Another challenge in current assessments is that they do not draw on key research on learning trajectories (Heritage, 2008) to gauge student progress on key ideas across the grades. Acknowledging the need for innovation in these areas, the National Research Council has called for: 1) research guided by a synthesis of cognitive and measurement principles; and 2) forms of assessment that can be made practical for use in classroom and large-scale contexts (Pellegrino *et al*., 2001). In this section, we describe our plans to implement a comprehensive, balanced, multiple-element assessment system that will generate data, feedback, and guidance for improving instruction and, consequently, student outcomes.

Responding to the 2008 NC Blue Ribbon Commission on Testing and Accountability report, the NC State Board of Education (SBE) published a detailed call to improve coherence among NC's standards and associated assessments. The NC Department of Public Instruction's (NCDPI) Accountability and Curriculum Reform Effort (ACRE) has paved the way for this work by overhauling NC's content standards and investigating changes in summative assessments, technological innovations, and initial professional development. ACRE's work is being conducted in two phases. Phase I is well underway, with Essential Standards already developed in five areas: Math, Science, English 10, Information and Technology Skills, and Occupational Skills. ACRE is now developing summative assessment items to assess end-of-year achievement of the Essential Standards, studying the characteristics of effective summative assessment, and exploring criteria for establishing constructed response and portfolio reports. As the Voluntary State Common Core standards are released, ACRE will join others in collaboration to develop associated summative assessments.

Furthermore, NC is already demonstrating the required shift towards the implementation of new technologies to revitalize both instruction and assessment. LEAs are participating in a wireless/handheld assessment project in which both Math and Reading are being assessed in grades K-3. These LEAs receive extensive professional development in assessment practices and implementation. The student data instantaneously collected in conjunction with the use of the wireless handhelds is transforming teachers' use of formative and interim data. The reliable acquisition of meaningful data is allowing instruction to be changed well before the annual summative testing period.

NC's extensive groundwork has established the necessary call to action, the political momentum for change, and a detailed plan to

achieve a more effective system of standards, summative assessment, and accountability. NC is now well positioned to dramatically improve instructional practice through a *Comprehensive, Next-Generation Assessment System* that will transform existing assessment approaches by providing:

- A robust, comprehensive, networked database to underpin the assessment system;
- Data as a source for continuous improvement;
- A seamless connection among curricula, instruction, and assessment;
- Support for increased student interaction and engagement; and
- Immediate and precise feedback to teachers and students.

This proposed assessment platform, situated within the larger NC eLearning system, will have the ability to connect formative assessment results and curriculum monitoring with summative assessment results. It will thereby permit practitioners to use formative assessment to continually adjust practices towards the ultimate outcome of improved student achievement.

Central to our approach is a cognitive diagnostic assessment model that incorporates the latest research on cognitive learning trajectories: the sequences of how students learn across grades (Heritage, 2008). In order to address the needs of underperforming students, teachers need precise information about what their students know and are able to do and what they have not yet learned. With the comprehensive assessment system, teachers can serve their full range of students more productively due to their growing understanding of the vertical development of concepts. Implementing a cognitive diagnostic assessment model tied to Common Core standards is a key step to transforming schools to a knowledge-based model of educating all our students for the 21st century.

RttT offers an opportunity to leapfrog the usual incremental improvements in favor of disruptive and transformative change in how we drive instructional improvement. To accomplish this, we will put in place a comprehensive, next-generation, data-driven assessment system and will link it to our longitudinal data systems via the enhanced technological backbone. Our transformation of the assessment system will be driven by three complementary assessment approaches addressing: 1) daily classroom learning, student discourse and engagement; 2) diagnostic assessment based on learning trajectories; and 3) monitoring of curriculum coverage and achievement.

C.3.ii. Support participating LEAs and schools that are using instructional improvement systems

Assessments System Transformation under *RttT*

The first assessment component is a network system for sharing, displaying, and commenting on student work *during class*. This fosters highly flexible formative assessment using a wide variety of content resources - innovations such as instantaneous student-survey results and sequencing student work display to engender discussion. An allocation of *RttT* funding to NC will allow us to immediately begin work with all LEAs around formative assessment tools and strategies, using a variety of available innovative assessment products, resources, and technologies. This instant access to innovative instructional resources will allow schools to gauge improvement within the first two years. NC also plans to partner with other states in the development and design of formative assessment tools and resources, providing NC with robust thought partners at various levels and locales across the nation.

The second component of the comprehensive assessment system, a Cognitive Diagnostic Assessment Model (CDA-M), will be comprised of two sets of diagnostics: one for Math K-8 and one for Science K-8. Design of both diagnostic systems, beginning with mathematics, will be based on the Voluntary State Common Core Standards to be released during spring 2010. A learning trajectories approach will be employed in the design of the NC diagnostic assessments. This approach has already been articulated for the current NC Essential Standards and is being incorporated in the design of the Common Core Standards, following a conference hosted in NC in August 2009. The assessments' design will be designed and validated based on an evidence-based assessment model (Mislevy *et al*., 2003, 2006; Pellegrino *et al.*, 2001; Wilson, 2005). Three mathematics learning trajectory diagnostics are currently under development (equipartitioning, multiplication and division, and length and area), and three more are planned during 2010 (ratio and fractions, decimals and percent, and similarity and scaling) (Confrey *et al*., 2008, 2009). In NC, diagnostic assessments will be administered periodically (coordinated with curricular progress). The data will be made available to teachers, parents and students as profiles over time. For *RttT*, additional trajectories and diagnostic assessments will be developed for counting and place value, concepts of statistics and quantitative measure, and early algebra.

The third assessment component is designed for local districts to plan and monitor teachers' curricular pacing, and to link it to the

enhanced standards. It supports districts, teachers, students, and parents through: 1) use of district pacing guides and teacher logs for planning and documenting curricular use; 2) incorporation of department- or grade-level common assessment results and joint development of rubrics and scoring (associated with improved student learning); 3) mentoring by administrators and department chairs for teachers whose curricular pacing consistently lags or whose students exhibit persistently weak performance; 4) assistance to school officials for documenting to parents and students the connection of attendance patterns to curricular pacing and assessment outcomes; and 5) monitoring pacing in curriculum to assist in selecting curricular materials in relation to student outcomes on summative assessments. Utilizing *RttT* funding within years 1 and 2, schools and LEAs will be able to network and package funding related to formative and interim benchmarking systems. Partnering with other states via consortia will allow optimal coordinated allocation of funds to all three components and facilitate the transformation of NC's assessment system. The research gathered by LEAs around formative and interim assessment systems will enable NC to develop a comprehensive network available to the entire state.

The underlying infrastructure of the Comprehensive, Next-Generation Assessment System will consist of a rich and varied networked database, the repository of formative and diagnostic assessment items and formats, and the dynamic architecture for the rapid turnaround of outcome data and customized reports to teachers and schools. We envision a variety of uses and media, simulation, and data-harvesting structures to ensure students are assessed at all levels of cognitive demand. Items used in diagnostic assessments will be sequestered and secured so that these assessments maintain their validity. This database will also eventually incorporate a set of curricular resources to promote a seamless relationship between instruction and continuous assessment. Figure 6 summarizes the major components of the system.

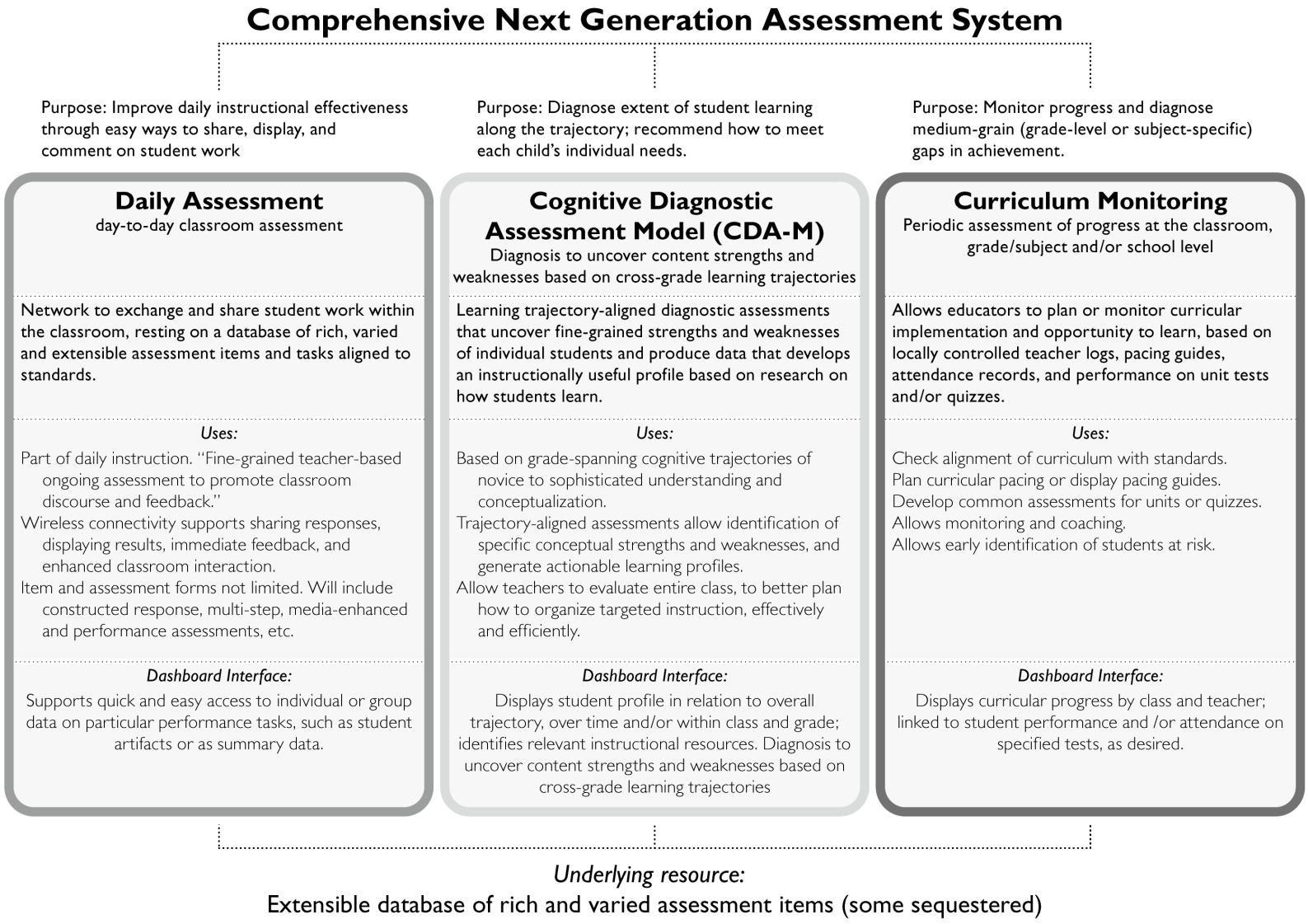

Figure 6: Components of the Comprehensive, Next-Generation Assessment System

Finally, a “dashboard” interface will be developed to make the entire assessment system easy for users to understand, manipulate, and interpret. Data capture and display will support an increasingly clear, nuanced, reliable, and actionable picture of individual student performance. The uniformity and familiarity of the dashboard will allow for meaningful, data-based discussions within and among the professional educational communities. These will support efficient decisions, goal setting about changes in performance they expect to see over time, and monitoring of progress towards the achievement of those goals.

Introduction of these new components of assessment will not increase the time spent on assessment in schools. Elements of assessment in curricular monitoring are already being administered; but such systems are expensive and not available in an equitable distribution within NC. The infusion of funds will allow all LEAs to scale up and use curricular monitoring systems to ensure that the common standards are taught with appropriate rigor. The new system will facilitate more effective and efficient integration of daily assessment elements into regular classroom instruction, a high priority across NC. Finally, teachers will administer the diagnostic assessments only after students have been taught key concepts; the precision of diagnostic output will aid in the efficiency of assessment use.

Professional Development and Instructional Transformation

Professional development to assist teachers in making full and effective use of the system will be a core component of the overall professional development initiative described in Section D5. Within the framework of "reciprocity of accountability for capacity" (Elmore, 2002), NC will provide teachers with work tools and environments that can make their jobs more effective, satisfying, and efficient; in turn, teachers will be expected to demonstrate proficient use of the system and translate their use of the system into improved student engagement, stronger performance at all levels of cognitive complexity, and increased student achievement.

Professional development accompanying the comprehensive assessment system has three components, each with overlapping phases:

1. Learning trajectories, diagnostic profiles, and ongoing formative assessment practices

- *Phase I:* Teachers will develop observable mastery of classroom assessment (formative) methods: seamless and engaging flow of descriptive feedback; peer- and self-assessment for learning; and gathering and tracking data to make regular instructional

adjustments;

- *Phase II:* Teachers will develop a deep understanding of student learning trajectories as they relate to common core standards, including the related content knowledge. This will allow them to follow the vertical development of concepts and communicate with colleagues across grade levels; and
- *Phase III:* Teachers' understanding of learning trajectories and associated diagnostic profiles initiates ongoing growth in their expertise in key pedagogical practices: 1) evaluating and sequencing the relative difficulty of instructional tasks; 2) anticipating students' work by locating them within a range of conceptual development; 3) recognizing students' behaviors and strategies (such as those documented in the trajectories); 4) developing frameworks for sequencing in-class presentation of students' work; 5) connecting essential mathematical ideas across multiple examples of students' ideas; and 6) differentiating instruction for smaller groups of students within the classroom.

2. Curriculum monitoring, supported by diagnostic assessment, involving teachers, curriculum specialists, and administrators

- Teachers, curriculum specialists, and administrators will establish local professional learning communities to plan, discuss, and reform curricular implementation, pacing guides, curricular logs, and periodic common curricular assessments each year, for each grade. They will learn to plan and monitor curricular pacing and design ways to assess student learning of curricular elements; and
- Teachers, curriculum specialists, and administrators will be taught to examine data patterns, including variations and distributions, to discern trends, identify students at risk for early intervention, and ensure fair and equal opportunity to learn for all students. This element will also concentrate on practitioners interpreting data and establishing actionable, instructional improvement plans.

3. Assisting community outreach professionals in helping to ensure that students and parents are able to interpret student achievement data and respond effectively to meet the students' needs

- NC will partner with student, parent, and educator- and community-based organizations in order to create a clear and coherent explanation of the new assessment system; and
- Reporting functions will be designed that create easy-to-understand and meaningful pictures of progress for students to facilitate

student goal-setting, self-awareness and reflection on academic progress. Additionally, these reporting tools will serve as the foundation for communicating with parents about student progress.

C.3.iii. Make the data from instructional improvement systems, together with statewide longitudinal data system data, available and accessible to researchers

A comprehensive, next-generation assessment system and the resulting data will create a unique and unparalleled opportunity to learn about what works in education. The system will capture valuable data from classroom practices and, in connecting this data with the longitudinal data system, will provide invaluable insight into the relationship between student outcomes and instructional and classroom practices.

NC will ensure that data collected from the comprehensive assessment system will be made available to researchers. The system will capture and make available ongoing achievement data and interventions designed to address student needs and will make data sets for research purposes easily available, with appropriate protections for student and teacher confidentiality. NC will facilitate the extraction of the data most likely to be of high research interest. As the system is built, NC will continually seek opportunities to connect the system data to other instructional datasets, pre-existing or existing outside the system, to facilitate an increasingly clear picture of what the best teachers and schools do to increase student achievement.

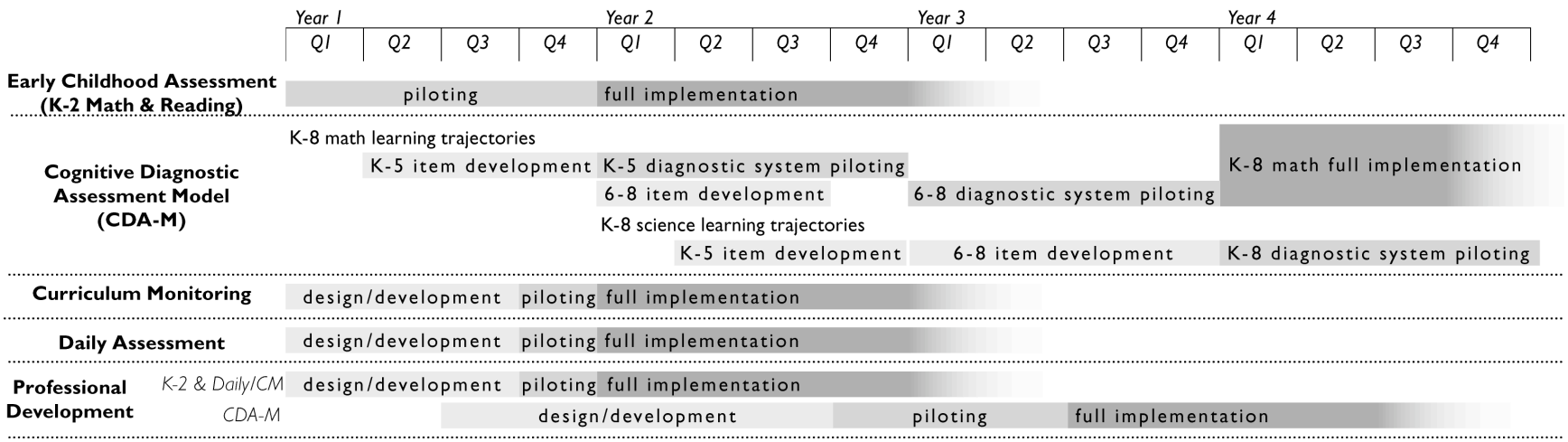

Figure 7: Implementation Timeline for Comprehensive, Next-Generation Assessment System

Figure 7 provides the timeline for implementation of the system. The three components of the comprehensive assessment system will be introduced in phases and coordinated with the Technology Platform. First, the database structure will be built; it will include the capability to tag assessment items with common standards and learning objects. Because the capacity to build both the daily assessment capabilities and the curriculum monitoring tools is easily within reach of current technological capacity, we will begin immediately to design and implement (or purchase) these components. Professional development for the curriculum monitoring professional learning community will be initiated at this same time.

The development of the cognitive diagnostic assessment system will take place more gradually. Based on our current progress in mathematics, we begin immediately to design the K-8 mathematics diagnostics based on learning trajectories during years 1 and 2. During year 3, we will phase in the use of the diagnostics, first in selected districts and then statewide by year 4. During years 2 and 3, we will develop and pilot the associated professional development. After establishing Essential Standards for Science in year 2, we will design the K-8 science diagnostics based on learning trajectories. During year 4, we will phase in the use of the science diagnostics, first in selected districts and planning for statewide implementation subsequently. Professional development will be designed and implemented in years 3

and 4 for K-8 science.

All development will be accompanied by designs for accommodations for special-needs students, Limited English Proficient students, and students with disabilities. Planning for sustainability of these approaches will incorporate the identification of current funding sources that can be repurposed to ensure the completion and continuous improvement of our comprehensive assessment system.

(D) Great Teachers and Leaders *(138 total points)*

State Reform Conditions Criteria

(D1) Providing high-quality pathways for aspiring teachers and principals *(21 points)*

The extent to which the State has—

(i) Legal, statutory, or regulatory provisions that allow alternative routes to certification (as defined in this notice) for teachers and principals, particularly routes that allow for providers in addition to institutions of higher education;

(ii) Alternative routes to certification (as defined in this notice) that are in use; and

(iii) A process for monitoring, evaluating, and identifying areas of teacher and principal shortage and for preparing teachers and principals to fill these areas of shortage.

In the text box below, the State shall describe its current status in meeting the criterion. The narrative or attachments shall also include, at a minimum, the evidence listed below, and how each piece of evidence demonstrates the State's success in meeting the criterion. The narrative and attachments may also include any additional information the State believes will be helpful to peer reviewers. For attachments included in the Appendix, note in the narrative the location where the attachments can be found.

Evidence for (D1i), regarding alternative routes to certification for both teachers and principals:

- A description of the State's applicable laws, statutes, regulations, or other relevant legal documents, including information on the elements of the State's alternative routes (as described in the alternative route to certification definition in this notice).

Evidence for (D1ii), regarding alternative routes to certification for both teachers and principals:

- A list of the alternative certification programs operating in the State under the State's alternative routes to certification (as defined in this notice), and for each:
    - The elements of the program (as described in the alternative routes to certification definition in this notice).
    - The number of teachers and principals that successfully completed each program in the previous academic year.
    - The total number of teachers and principals certified statewide in the previous academic year.

Recommended maximum response length: Two pages

D.1. Providing high-quality pathways for aspiring teachers and principals

D.1.i. Legal, statutory, or regulatory provisions that allow alternative routes to certification

NC legislation and State Board of Education (SBE) policy support several alternative routes to licensure.[3] General Statute 115C-296 (Board Sets Certification Requirements) grants full control of licensure decisions to the SBE and explicitly supports the establishment of alternative routes to licensure. Relevant SBE policies include: TCP-A-001 (Policies on General Licensure Requirements), Sections 1.70-1.90, which describe the alternative paths to licensure; TCP-A-002 (Policies on Routes to Licensure), which describes requirements for those paths; TCP-A-014 (Policies on Licenses for Non-Teacher Education Graduates), which details procedures for obtaining lateral entry licenses; TCP-B-006 (Policy Defining Innovative/Experimental Programs for School Administrator Preparation), TCP-B-010 (Policy Defining Innovative/Experimental Programs for Lateral Entry Teacher Licensure), and TCP-A-018 (Policy Governing Reciprocity in Licensure), which declare the SBE's ability to approve additional alternative pathway programs. A recent act of the NC General Assembly, SL 2009-0451, Section 7.21.(a) (Remove Barriers to Lateral Entry into Teaching), directs the SBE to further reduce barriers to entry; progress toward that goal is described below. Appendix 21, Appendix 22, and Appendix 23 provides more complete summaries of these policies and statues.

D.1.ii. Alternative routes to certification that are in use

Alternative Routes to Licensure for Educators

NC already offers several alternative licensure pathways for prospective educators – including lateral entry pathways and direct licensure – that lead to the same level of licensure as do traditional pathways. Approximately 48% of all teachers in NC hold at least one license that was earned through an alternative route (many teachers hold multiple licenses for teaching different subjects, grade levels, and specialties); about 3% of all active principals were licensed through an alternative route. Appendix 24 provides details about the number of teachers and principals licensed through each approach. Summary information about alternative pathways is

3 In 1993, the SBE formally changed all credentialing references in NC from "certification" to "licensure."

provided below.

Lateral Entry for Teachers

NC's existing lateral entry pathways are for qualified candidates who are not licensed but who hold a bachelor's degree and have already been hired by a school system. Candidates are granted a license under the condition that, over the ensuing three years, they will complete a teacher education program through an institute of higher education (IHE), a Regional Alternative Licensing Center (RALC; see below), or an LEA lateral entry program (see below). In addition to holding a bachelor's degree, a candidate for lateral entry must meet at least one selection criterion in each of two areas:

- ***Either*** hold a degree (from a regionally accredited institution) in the area in which he or she is seeking licensure ***or*** have 24 semester credit hours in a core subject area[4] ***or*** have a passing score on relevant Praxis II or ACTFL tests; ***and***
- ***Either*** have an overall GPA of 2.5 ***or*** a passing score on Praxis I and a 3.0 GPA in the major or the senior year or in 15 semester hours completed after earning the degree and within the last five years ***or*** at least five years of relevant experience.

Candidates who have five or more years of experience considered relevant by an employing LEA and satisfy testing requirements for the licensure area within the first year of teaching are eligible for an initial license after one year if they complete a series of prescribed professional development modules and one year of successful teaching, as verified by the employing LEA. LEAs that employ lateral entry candidates are required to: 1) provide a two-week, pre-work orientation that includes modules on lesson planning and classroom organization and management, as well as an overview of the ABCs program (including the NC Standard Course of Study and end-of-course/grade testing); 2) assign the candidate a mentor on or before the first day on the job; 3) provide working conditions similar to those for novice teachers; 4) give regular, focused feedback to the candidate for improving instruction; and 5) assist the candidate in accessing prescribed course work and professional development opportunities.

IHE-based Lateral Entry Programs: Several lateral entry programs are offered through various IHEs across NC, and programs

4 There are some exceptions to this rule with respect to elementary children, exceptional children, and ESL teachers.

associated with the UNC system produce about 1,000 prospective teachers annually (nearly 10% of annual demand). The largest program is NC TEACH, a statewide, lateral entry licensure program offered through 12 IHEs. This program begins with an intensive, full-time, summer program that candidates complete as part of a cohort. During the first lateral entry year, candidates complete weekend and evening coursework with their cohort. While the specifics of individual programs may vary from IHE to IHE, it takes a minimum of 12 months to complete the 18-credit-hour program and be recommended for a clear initial license. Since NC TEACH was established in 2000, more than 1,300 participants have been licensed through the program. Licensed NC TEACH participants currently serve in more than 85 (of the 115) school districts in all regions of NC. Information about another IHE-based path – lateral entry via Teach for America – can be found in Section D3.

Regional Alternative Licensing Centers: RALCs, established by the SBE in 2002, are regional offices authorized to evaluate and prescribe plans of study that lead to licensure. About 1,000 candidates complete plans of study through the four centers (Charlotte, Fayetteville, Nash-Rocky Mount, and Catawba) every year. Because a candidate following a RALC program of study is not tied to any single IHE licensure program, he or she can attend multiple community colleges and/or universities for coursework.

Innovative and Experimental Lateral Entry Programs*:* NC also encourages the development of new approaches to lateral entry licensure that are not directly administered by the state. Proposals for such programs are reviewed by the NC Department of Public Instruction (NCDPI), the NC Professional Teaching Standards Commission, and the State Evaluation Committee on Teacher Preparation and Certification. An approved program must be administered by a school system, either on its own or in conjunction with a community college or university. Programs also must include exit levels of competence, procedures for recommending licensure, and follow-up processes, as well as clearly defined, measurable expected outcomes/results. Since establishing the innovative and experimental lateral entry policy in August 2007, the SBE has approved several programs. Guilford County, which established the first such program, offers lateral entry candidates the option of selecting an 18-month-long, locally customized licensure and support program as an alternative to an IHE or RALC program; 15 candidates completed the program in 2009, and 50 are scheduled to complete in 2010. Moore County has partnered with Sandhills Community College to create a similar program. In

July 2009, the SBE approved a program for career and technical education teachers in the Charlotte-Mecklenburg School System (CMS) – which already hosts nine candidates – as well as a program offered through Mount Olive College (The Consortium for Orchestrating Regional Education) for LEAs in the eastern part of NC (four completed in 2009, and three more will complete in 2010). Iredell-Statesville is also currently in the process of developing a program. Additional programs and community outreach focused on lateral entry in STEM subjects are under development through the NC STEM Community Collaborative, which is supported by the Bill & Melinda Gates Foundation.

Expansion of Lateral Entry Pathways for Teachers: NC Session Law 2009-451, passed in August 2009, requires the SBE to identify and remove barriers to lateral entry into teaching for skilled individuals from the private sector. It also requires the SBE to trim current course requirements and to allow opportunities for candidates to complete coursework online. A progress report will be presented to the Joint Legislative Oversight Committee in January 2010. Preliminary recommendations include: modifying required pedagogy coursework to align with the new Professional Teaching Standards, which will reduce coursework from nine to five courses; and engaging an outside, online learning vendor to create course modules that will offer lateral entry teachers expanded options for course completion.

Alternative Programs for Administrators

In July 2007, the SBE adopted a policy for approving innovative/experimental programs for school administrator preparation. In June 2008, the SBE gave approval for the Charlotte Mecklenburg Schools to recommend individuals who complete its New Leaders for New Schools program (NLNS) for a full state license as a school administrator. The program's goal is to provide as many as 50 principals for CMS, and there are nine candidates in the first cohort. NLNS is designed to provide intensive instruction, hands-on experience, and ongoing support to create a pathway for current and former educators to become principals who specialize in leading urban public schools. The SBE also already has approved the development of Regional Leadership Academies (RLAs), described in Section D3, as another means for individuals to obtain principal licensure.

Direct Licensure

NCDPI's Licensure Section may evaluate individual records for the purpose of establishing eligibility for licensing without the involvement of an IHE or other authorized recommending agency. Direct licensure may be used when there are unique employment qualifications for a license area (*e.g.*, career-technical education, international faculty), or a limited number of approved teacher or administrator education programs in the license area, as well as in the case of extenuating circumstances that prohibit a fair and equitable evaluation through other established routes to licensure. Employees earning licenses through this direct process must comply with all current provisional, beginning teacher, and testing requirements, as well as any experience requirements for the area of licensure sought.

D.1.iii. Monitoring, Evaluating, and Identifying Areas of Teacher and Principal Shortage

The NCDPI compiles and presents to the SBE an annual report of teacher and principal vacancies remaining in each LEA after October 20th. The report (Appendix 25) disaggregates vacancies by subject area and by LEA. Each of the alternative licensure programs described above helps to address the shortages indicated in each LEA, as will the initiatives described in Section D3.

In addition, in 2006, the NCDPI outlined and implemented an ambitious, 10-point plan for addressing identified shortages:

1. Ongoing public reporting of shortages;
2. Development of LEA-level equity plans for ensuring highly qualified teachers for all students;
3. Administration and analysis of the Teacher Working Conditions (TWC) survey;
4. Comprehensive provision of mentoring for early-career teachers;
5. Development of local retention plans by LEAs with teacher turnover rates higher than the state average;
6. LEA-level flexibility for providing financial incentives;
7. Establishment of Turnaround Teams for low-performing high schools;
8. Provision of literacy coaches to strengthen professional development in high-needs middle schools;
9. Expansion of access to teacher preparation programs via community colleges and other outlets; and

10. Development of the NC Virtual Public School to provide students with greater access to highly qualified teachers statewide.

Progress has been made in addressing all 10 points of the plan, with substantial progress made in addressing points 1, 3, 4, 6, 7, 8, 9, and 10. Details on many of these points can be found in Sections A3, D4, D5, and E.

Finally, under NC General Statute 115C-296.1(d), LEAs are required to inform the SBE of positions that are filled by teachers who do not meet standards for initial licensure.

Reform Plan Criteria

(D2) Improving teacher and principal effectiveness based on performance *(58 points)*

The extent to which the State, in collaboration with its participating LEAs (as defined in this notice), has a high-quality plan and ambitious yet achievable annual targets to ensure that participating LEAs (as defined in this notice)—

(i) Establish clear approaches to measuring student growth (as defined in this notice) and measure it for each individual student; *(5 points)*

(ii) Design and implement rigorous, transparent, and fair evaluation systems for teachers and principals that (a) differentiate effectiveness using multiple rating categories that take into account data on student growth (as defined in this notice) as a significant factor, and (b) are designed and developed with teacher and principal involvement; *(15 points)*

(iii) Conduct annual evaluations of teachers and principals that include timely and constructive feedback; as part of such evaluations, provide teachers and principals with data on student growth for their students, classes, and schools; *(10 points)* and

(iv) Use these evaluations, at a minimum, to inform decisions regarding— *(28 points)*

- Developing teachers and principals, including by providing relevant coaching, induction support, and/or professional development;

(b) Compensating, promoting, and retaining teachers and principals, including by providing opportunities for highly effective teachers and principals (both as defined in this notice) to obtain additional compensation and be given additional responsibilities;

(c) Whether to grant tenure and/or full certification (where applicable) to teachers and principals using rigorous standards and streamlined, transparent, and fair procedures; and

(d) Removing ineffective tenured and untenured teachers and principals after they have had ample opportunities to improve, and ensuring that such decisions are made using rigorous standards and streamlined, transparent, and fair procedures.

The State shall provide its detailed plan for this criterion in the text box below. The plan should include, at a minimum, the goals, activities, timelines, and responsible parties (see Reform Plan Criteria elements in Application Instructions or Section XII, Application Requirements (e), for further detail). Any supporting evidence the State believes will be helpful to peer reviewers must be described and, where relevant, included in the Appendix. For attachments included in the Appendix, note in the narrative the location where the attachments can be found.

Recommended maximum response length: Ten pages

D.2.i. Measuring Student Growth

NC's major school improvement program, called the *ABCs of Public Education*, began in the 1996-97 school year and has included measures of student achievement growth since its inception. The ABCs program provides NC with a school-level accountability system that supports data-driven decision-making, allowing NC to better target school improvement efforts. The ABCs program also includes financial incentives for all professional staff in schools that meet or exceed expected growth. Thus, most of the accountability requirements contained in federal *No Child Left Behind* (NCLB) guidelines already were well established by 2002, at which time NC added only AYP measures and requirements for schools to disaggregate data by student subgroups to the ABC process.

NC's long-standing focus on the annual growth of students and on school-based accountability has not wavered, and we continue to raise standards and strengthen the ABCs approach. In 2006, with support from the USED, NC made significant changes to the ABCs program with the implementation of new growth formulas. The ABCs accountability report is available online to provide timely access for North Carolinians.

At the school level, the current ABCs accountability system publicly reports performance, growth, and AYP measures for the school overall and for NCLB-defined subgroups that have more than 40 students. These measures are based on the following assessments:

- End-of-grade tests, administered statewide in reading and mathematics in grades 3 through 8 and in science in grades 5 and 8;
- End-of-course tests, administered statewide to high school students in eight subject areas: Algebra I, Algebra II, Biology, English I, Geometry, US History, Civics and Economics, and Physical Science; and
- Alternative assessments, available for certain students with disabilities.

Performance measures place students in one of four achievement levels, with Level III considered at-grade level and Level IV considered above-grade. The performance composite for a school is the proportion of test scores at or above Achievement Level III.

An individual student's growth measure is calculated as academic change from a baseline average of the previous two years' assessments. If only one year's end-of-grade test data are available, the expectation for change is based on one previous assessment. Under the growth formulas, the individual student is expected to perform on the end-of-grade assessment for the current year as well as or better than she or he did, on average, during the previous two years. This expectation is determined by placing students' scores on a c-scale (a "change scale," to which a student's developmental scale score is converted), with an adjustment for regression to the mean.

AYP status is determined by whether the students in the school as a whole and in each identified subgroup with 40 or more students meet the performance standards set by NC in compliance with federal guidelines, with the goal of 100% proficiency by 2013-14.

NC schools are classified on the set of measures shown in Table 11.

Table 11: NC School Classification Measures

<table>
<tr><td rowspan="3">Performance Level
(Based on % of students' scores at or above Achievement Level III)</td><td colspan="3">Academic Growth</td></tr>
<tr><td colspan="3">Schools making:</td></tr>
<tr><td colspan="2">Expected Growth or High Growth</td><td>Less than Expected Growth</td></tr>
<tr><td rowspan="2">90% - 100%</td><td>AYP met</td><td>Honor School of Excellence</td><td rowspan="3">No recognition</td></tr>
<tr><td>AP not met</td><td>School of Excellence</td></tr>
<tr><td>80% - 89%</td><td colspan="2">School of Distinction</td></tr>
<tr><td>60% - 79%</td><td colspan="2">School of Progress</td></tr>
<tr><td>50% - 59%</td><td colspan="3">Priority School</td></tr>
</table>

ABCs legislation provides for incentive bonuses for each licensed staff person in schools that meet expected growth (up to $750) and high growth (up to $1,500). In addition, NC is funding new approaches for linking student growth to incentives for individual teachers. In the past two years, the Collaborative Project (a partnership of the NC Public School Forum and the NC Science, Mathematics, and Technology Education Center) has linked the ABCs growth measure to financial incentives for individual teachers and principals, aiming to increase teacher and principal effectiveness in low-performing districts. Other programs linking student growth to teacher and principal evaluations and incentives are being implemented in individual districts, including Charlotte-Mecklenburg (CMS), Guilford, Cumberland (all Teacher Incentive Fund sites), and Forsyth. NC is monitoring these approaches to determine which models successfully improve teacher and principal recruitment, retention, and effectiveness in high-need schools. See Appendix 26 for further description of the Teacher Incentive Fund Grantees and Collaborative Project.

Finally, in 2007-08, the SAS Education Value-Added Assessment System (EVAAS) was made available to all NC public schools. EVAAS is a customized software system that extends the information available to educators via the ABCs about individual

student growth. Users can produce reports that predict individual student success on end-of-grade and end-of-course tests, reveal patterns in subgroup performance, and estimate the impact of teachers and schools on student achievement. EVAAS adds dimensions to the ABCs growth measure by analyzing multiple aspects of a student's academic history. It uses historical test data and offers a precise measurement of student progress over time, as well as a reliable diagnosis of opportunities for growth, based on up to five years of data for an individual student. One potential use of EVAAS is its ability to predict the probability that individual students will succeed in specific courses, based on analyses of their prior test scores. This predictive analysis already is being used to inform placement decisions into mathematics courses and has led to an increase in earlier enrollment in Algebra I. Also, the ability to identify students who are at risk allows teachers to customize instruction for them to accelerate their academic growth.

Further information about these measures is provided in Appendix 27.

D.2.ii. Evaluation

Systems for Teachers and Principals

NC is deeply committed to rigorous, transparent, and fair evaluations for teachers and principals, with student growth measures an essential component of a comprehensive system for evaluating educators that is used to help ensure that every student has effective teachers and every school has an effective principal.

NC recently began statewide roll-out of the NC Educator Evaluation System (NCEES). The NCEES includes a new set of professional standards for teachers and principals, along with new statewide evaluation processes aligned with those standards. The NCEES is aligned with the State Board of Education's (SBE) Future-Ready Mission and Goals, the Framework for 21st Century Skills, research results from the NC Teacher Working Conditions (TWC) Survey, program approval for Schools of Education and MSA Programs, and professional development and mentoring programs. The standards reflect the complexity of education in the 21st century by emphasizing the important roles of leadership, teamwork and collaboration, higher-order thinking, authentic assessment, and technology-infused learning. NC is the only state with an evaluation system that is aligned across so many levels of education, including teacher preparation and school administrator programs in NC's Schools of Education, which recently

completed a re-visioning process to align their programs with the teacher and principal standards.

NCEES currently includes a *Teacher Evaluation Process* (TEP) and a *Principal Evaluation Process* (PEP), and evaluation instruments are being field-tested for assistant principals and superintendents. The teaching standards and the TEP were developed by the NC Professional Teaching Standards Commission, whose membership includes classroom teachers, school and district administrators, education faculty, and the president of the teacher's association; feedback from focus groups across NC informed this development process. The TEP evaluates teachers on five standards: demonstration of leadership; establishment of a respectful environment for a diverse population of students; knowledge of content taught; facilitation of learning; and reflection on practice. Evaluations occur four times a year for probationary teachers and annually for career-status teachers. The PEP was developed by a task force composed of administrators, business representatives, legislators, and members of professional organizations. Like the TEP, it incorporates multiple standards that cover multiple facets of leadership (strategic, instructional, cultural, human resources, managerial, external development, and micro-political). A unique component of the PEP is its integration of TWC Survey data as an artifact, which helps principals to focus on how best to improve teaching and learning conditions. The importance of student achievement and growth is woven throughout both instruments. An educator's mastery of aspects of each standard is rated as *Not Demonstrated*, *Developing*, *Proficient*, *Accomplished*, or *Distinguished*. Both the TEP and PEP were designed primarily to support professional growth while also helping to differentiate teachers and principals, identifying those at the top end who may be candidates to serve as mentors or professional development leaders, as well as those at the lower end who are in need of remediation or possible dismissal. (See Appendix 28 and Appendix 29 for the NC Teacher and Principal Standards and Evaluation Rubrics) The SBE requires all LEAs across NC to implement the NCEES instruments. Superintendents evaluated all principals using the PEP beginning in 2008-09. The implementation of the TEP began with 13 districts in 2008-09 and 39 districts in 2009-10. The remaining 63 districts will put the TEP into practice in 2010-11.

D.2.iii and D.2.iv. Initiatives to Improve Effectiveness Based on Performance

NC recognizes and understands that a teacher's influence is the single most important measurable influence of schooling on

student academic progress. Furthermore, given NC's long experience in developing both student and educator evaluations, as noted above, we understand the challenges of designing and implementing a rigorous, transparent, and fair system for evaluating teachers and principals using student growth measures as a major component. Our understanding is based upon our own history of educator evaluation systems, the innovative approaches that are being implemented and evaluated in some NC districts and projects, and the measurement and psychometrics expertise available in the UNC system, The NC Department of Public Education (NCDPI), and SAS, Inc. (an NC-based, private-sector leader in analytics, and developer of the EVAAS system described above). We recognize numerous concerns, including those about: the use of student growth data based upon assessments that are in the process of being changed; evaluation of teachers of untested subjects and lack of valid longitudinal data for many grades and subject areas (*e.g.*, Martineau, 2006; Milanowski *et al*., 2009); non-random assignment of students to teachers (*e.g.*, Rothstein, 2009); student cohort effects (*e.g.*, Raudenbush, 2004); teacher peer effects (*e.g.*, Alicias, 2005; Lockwood *et al*., 2007); school context and leadership effects; and other issues (Board on Testing and Assessment & National Research Coalition, 2009). Careful work is required to develop and implement a system that is rigorous, transparent, and fair, so that it will be accepted by all constituents. Therefore, we plan to proceed with a thoughtful, data-informed process for efficiently incorporating student growth measures into educator evaluations that involves all stakeholders.

Building upon our commitments in this area, our progress and plans for the NCEES, and our understanding of the complex issues involved, the NC *RttT* Educator Evaluation Plan is comprised of three major parts: 1) adding a student growth component to the NCEES process for those teachers for whom appropriate measures are available; 2) fully implementing an NCEES process that includes the TEP, the PEP, and the use of student growth measures; and 3) conducting a thorough, data-informed investigation, with all relevant constituents represented, to determine the most rigorous, transparent, and fair way to incorporate student growth measures in teacher and principal evaluations.

1. Addition of a student growth component to the NCEES process (See Appendix 15 for NC SBE Resolution which commits NC to using student achievement growth data in the teacher and principal evaluation processes.)

Measurements of student growth (typically measurements of student progress across one academic year) will be incorporated into the NCEES process in two stages.

***Stage One*.** An emphasis on student growth is threaded throughout the TEP, and it is a particular focus of Standard IV: "Teachers facilitate learning for their students" and Standard V: "Teachers reflect on their practice." Similarly, student growth is cited as an important artifact for several standards evaluated by the PEP. Beginning in the 2010-11 school year, documentation for at least one TEP and PEP standard will require inclusion of one or more examples of pre-approved student growth data, which can include: ABCs growth measures; EVAAS results; Annual Measurable Achievement Objectives results for Limited English Proficient (LEP) students; measurable Individual Education Plan goals for special needs students; Career Technical Education Assessment System results for career and technical education students; or one of the other measures currently being explored in individual LEAs, such as locally developed pre- and post-course tests or the Student Learning Objectives (SLO) model currently employed in the CMS school district (through a Teacher Incentive Fund (TIF)-LEAP grant in collaboration with CTAC, the Community Training and Assistance Center). These pre- and post-tests and SLOs allow teachers and administrators to conduct rigorous measurements of student progress toward goals related to the NC Standard Course of Study for courses in which a standardized state assessment and/or baseline data from which to measure growth are not available.

***Stage Two*.** Beginning in the 2012-13 school year, after the completion of a Teacher Effectiveness Initiative (TEI) study (detailed below) and upon adoption of that study's recommendations for incorporating student growth measures in educator evaluations, all NCEES evaluations will expand to include a formalized student growth component that is distinct from the five (TEP) and seven (PEP) current NCEES standards. Currently, Standard Professional 1 (SP1 beginning) teachers are required to reach the level of proficient or better for each standard of the NCEES within three years; proficiency within two years is required for those holding a Standard Professional 2 (SP2 continuing) license. After adoption of the formalized student growth component, the definition of an *effective teacher or principal* will be an educator whose students' growth (in the aggregate) meets expectations (as defined by the TEI study) *and* whose ratings on the standards that comprise the NCEES are at the level of *proficient* or higher. The

definition of a *highly effective teacher or principal* will be an educator whose students' growth (in the aggregate) exceeds expectations (as defined by the TEI study) *and* whose ratings on all standards that comprise the NCEES are at the level of *accomplished* or higher.

We are sensitive to concerns that achievement data for one year in isolation is often inadequate for representing fairly a teacher's typical contributions to student learning. Therefore, student growth data will be appended for multiple years and will be considered formally by an evaluator once enough data are available to indicate potential trends (*e.g.*, three consecutive years of test scores in the same subject area).

Annual reporting to the public about teachers will include school- and LEA-level reports of: 1) the proportion of teachers whose students demonstrate expected growth and the proportion whose students' growth significantly exceeds expected growth; 2) the proportion of teachers who are at each level (not demonstrated, developing, proficient, accomplished, distinguished), by NCEES standard; and 3) the proportion of teachers who move beyond the "developing" level within the required timeframe. Reporting about principals will include LEA-level reports of: 1) the proportion of principals whose students on average meet or significantly exceed expected growth; 2) the proportion of principals who are at each level, by NCEES standard; and 3) the proportion of principals who move beyond the "developing" level within the required timeframe.

2. Full implementation of the expanded NCEES process

The primary lever for ensuring full implementation will be the development of Educator Evaluation System Support Teams. These teams will be phased in during the 2010-11 school year and will conclude their work by the end of the 2013-14 school year. They will work to deepen educator knowledge of the NCEES standards, the evaluation system, teacher working conditions, and the emerging student growth standards. In addition, the teams also will work to educate superintendents, principals, parents, community groups, business leaders, and others about the new system. They also will play a support role for observed teachers by providing deep feedback after their observations. Finally, they will help evaluators learn how to utilize technology as part of the observation and evaluation process. These supports will be part of the statewide Professional Development Initiative outlined in the response to

criterion D5.

***Development of teachers and principals*:** Along with the support provided to educators via the Evaluation Support Teams, NC will provide professional development tools and resources linked to each element of the NCEES, as described more fully in Section D5. In addition, coaching and induction support will be provided for targeted low-performing LEAs, as described in Section E2. NC will continue to support teacher pursuit of National Board Certification (as detailed in Section A3) and, once it is launched in 2011, will extend support to principals who pursue Advanced Certification for Educational Leaders (ACEL).

Granting tenure and full licensure: Teachers eligible for full licensure (continuing licensure) must meet the definition (above) of an effective teacher. After completing their fourth year of teaching, teachers can be considered for Career status by their local Boards of Education. In making Career status (tenure) decisions, local Boards will consider the following state guidelines: in addition to meeting the definition of an effective teacher, eligible teachers also should have been evaluated at least 16 times using the TEP; and they must be offered employment by the granting LEA (*i.e.*, offered a contract) for the following year.

Removal of ineffective teachers:

- By SBE policy, beginning in the 2010-11 school year, teachers in all LEAs who do not achieve a rating of proficient or higher on all five NCEES standards by the end of their third year (for SP1 educators) will not be eligible for SP2 licenses, and they may not continue to teach.
- In all LEAs, teachers with SP2 licenses who are rated as developing for one year on any of the five current NCEES standards will be placed on a monitored growth plan. If they do not become proficient by the end of the second year, they will be placed on a directed growth plan for a period of no more than one year. If proficiency is not obtained, then the teacher will be dismissed.
- At the beginning of each school year, principals and teachers (both SP1 and SP2) will review together student achievement data from the prior year. Beginning in 2012-13, if aggregated student data for a teacher are below expected growth, the principal and teacher will devise a professional development plan that includes strategies for improvement. Evaluators, supervisors, and coaches will be able to use NCEES and student growth data to identify professional development tailored to the needs of the

individual educator in order to have a positive and significant effect on student achievement. Should a teacher experience three consecutive years of student growth that is lower than expected, then the teacher will be placed on a directed growth plan for a period of no more than one year. If proficiency is not obtained, then the teacher will be dismissed.

***Removal of ineffective principals*:** Superintendents evaluate principals annually using the PEP. At the beginning of the year, each principal brings to a conference her or his school improvement plan, student achievement data, TWC survey results, SMART (Specific, Measurable, Attainable, Relevant, and Time-Bound) goals, and any other pertinent data requested by the superintendent. From these data, measureable goals are written for the year, reviewed mid-year, and evaluated at the end of the year. If a principal is ineffective for two consecutive years, her or his Superintendent may either place the principal on a directed growth plan, recommend that her or his contract not be renewed, or recommend dismissal.

Teacher and principal compensation. As NC fully develops and implements the NCEES teacher and administration evaluation system, we will engage in a parallel process to develop a new compensation system that includes multiple components such as experience, education, student growth or learning and other professional designations. The compensation system will be developed in collaboration with its stakeholders to determine a valid, fair, and reliable way to compensate teachers and administrators on multiple measures of professional growth and student achievement. We will build upon existing work in NC, including projects funded by several Teacher Incentive Fund grants to LEAs and the Collaborative Project funded by NC. The NC Network of Grantmakers has also conveyed their interest in supporting this effort. Through this process, we will carefully consider key issues, such as the transition from the current compensation system, incentives that align with NC and LEA needs, fairness to educators at different points in their careers, and the overall costs as compared to the current system.

3. Improving the use of student growth measures in educator evaluations

The TEI will conduct research to evaluate proposed approaches to integrating measures of student growth in the educator evaluation process along with current approaches already in use in NC and develop recommendations for improving that integration. It will also connect with other relevant research programs, such as the Bill & Melinda Gates Foundation-funded Measures of

Teacher Effectiveness Project, for which CMS is one of the test districts. This project will address both the *technical* and the *policy design issues* involved in the inclusion of measures of student growth data. The technical development process will evaluate approaches to estimating the amount of learning taking place in each classroom and separating out each teacher's contribution to that learning. The system design and policy development process will explore and resolve broader questions about how these estimates should be used and how to deal with data gaps or other issues. Issues to be addressed include: how best to assess teacher effectiveness 1) in untested subjects, 2) of initially licensed teachers (who have not yet developed a substantial history of student growth data), and 3) of teachers of students with special needs; how teacher effectiveness can best be incorporated into a system of teacher incentives; how information on teacher effectiveness can best inform decisions about professional development plans, teachers' roles as coaches and mentors for colleagues, and other aspects of teachers' career paths; and what type of value-added model can most precisely and reliably estimate teacher effectiveness in NC. In addition, ongoing evaluation of NCEES results across schools within and across LEAs will help to ensure the validity and consistency of the instrument's implementation statewide, including the degree to which results reflect variations in student outcomes. We are particularly interested in evaluating the relationship between the principal's or teacher's evaluation results and student achievement growth data. TEI will link evaluations to professional development in LEAs and schools where needed.

Supporting Technology

All three initiatives will benefit from access to a number of supporting technologies. One tool will support online recording and aggregation of NCEES results at the school and LEA levels. Another tool, being developed by a Bill & Melinda Gates Foundation-funded project, will support remote classroom observations for use in evaluations as well as coaching and mentoring. The technologies described under criterion (D5) for use in online professional development activities will support the implementation of the evaluation system. In addition, NC has applied for ARRA and other funding to efficiently scale communications fiber based throughout the state to higher bandwidth requirements**.**

Implementation Timeline

Several elements of this initiative – the development and distribution of teacher leader/principal teams, results analyses, and e-delivery of services – will be implemented statewide (see Table 12 for timeline). The expert observer role will be prioritized for: 1) high-need, low-performing districts that lack the capacity to provide adequate support for developing teachers; and 2) districts whose relative remoteness makes it difficult for them to recruit from a broad pool of teachers.

Table 12: Improvement Initiative Implementation Timeline

YEAR	ACTIVITIES
Summer/Fall 2010	Generation of job descriptions, recruitment, and training for each role; development of a strategic plan for entire-state coverage for each team of Teacher and Principal Leaders; development of TEI membership, guidelines, and detailed implementation plan; dissemination of e-Platform, online webinars, podcasts, professional development tools and content tied to the NCEES; full implementation of the TEP statewide (Fall)
2011	Deployment of Teacher and Principal Leader Teams to all LEAs; deployment of Observers to highest-need LEAs; first-year evaluation from the TEI (Spring); and pilot testing of TEI recommendations (Fall)
2012	Public provision of aggregated NCEES results; second-year evaluation of pilots and recommendations from the TEI (Spring); career development plans for developing teachers and availability of coordinated professional development based on TEP results and career coach recommendations in all high-need LEAs (Fall)
2013	Full implementation and first-year evaluation of TEI recommendations
2014	Full conversion to digital/e-support systems for new educators; publication of validity and reliability results for NCEES evaluations; and final evaluation of TEI recommendations

Performance Measures for D(2)		Actual Data: Baseline (Current school year or most recent)	End of SY 2010-2011	End of SY 2011-2012	End of SY 2012-2013	End of SY 2013-2014
Criteria	**General goals to be provided at time of application:**	**Baseline data and annual targets**				
(D)(2)(i)	Percentage of participating LEAs that measure student growth (as defined in this notice).	100	100	100	100	100
(D)(2)(ii)	Percentage of participating LEAs with qualifying evaluation systems for teachers.	45	100	100	100	100
(D)(2)(ii)	Percentage of participating LEAs with qualifying evaluation systems for principals.	100	100	100	100	100
(D)(2)(iv)	Percentage of participating LEAs with qualifying evaluation systems that are used to inform:					
(D)(2)(iv)(a)	• Developing teachers.	45	100	100	100	100
	• Developing principals.	100	100	100	100	100
(D)(2)(iv)(b)	• Compensating teachers.	0	0	TBD	TBD	TBD
	• Compensating principals.	0	0	TBD	TBD	TBD
(D)(2)(iv)(b)	• Promoting teachers.	45	100	100	100	100
	• Promoting principals.	N/A	N/A	N/A	N/A	N/A
(D)(2)(iv)(b)	• Retaining effective teachers.	45	100	100	100	100
	• Retaining effective principals.	100	100	100	100	100
(D)(2)(iv)(c)	• Granting tenure and/or full certification (where applicable) to teachers.	45	100	100	100	100
	• Granting tenure and/or full certification (where applicable) to principals.	100	100	100	100	100
(D)(2)(iv)(d)	• Removing ineffective tenured & untenured tchrs.	45	100	100	100	100
	• Removing ineffective tenured and untenured principals.	100	100	100	100	100

Performance Measures for D(2)	Actual Data: Baseline (Current school year or most recent)	End of SY 2010-2011	End of SY 2011-2012	End of SY 2012-2013	End of SY 2013-2014
General data to be provided at time of application:					
Total number of participating LEAs.	115				
Total number of principals in participating LEAs.	2,399				
Total number of teachers in participating LEAs.	99,730				

(D3) Ensuring equitable distribution of effective teachers and principals *(25 points)*

The extent to which the State, in collaboration with its participating LEAs (as defined in this notice), has a high-quality plan and ambitious yet achievable annual targets to—

(i) Ensure the equitable distribution of teachers and principals by developing a plan, informed by reviews of prior actions and data, to ensure that students in high-poverty and/or high-minority schools (both as defined in this notice) have equitable access to highly effective teachers and principals (both as defined in this notice) and are not served by ineffective teachers and principals at higher rates than other students; *(15 points)* and

(ii) Increase the number and percentage of effective teachers (as defined in this notice) teaching hard-to-staff subjects and specialty areas including mathematics, science, and special education; teaching in language instruction educational programs (as defined under Title III of the ESEA); and teaching in other areas as identified by the State or LEA. *(10 points)*

Plans for (i) and (ii) may include, but are not limited to, the implementation of incentives and strategies in such areas as recruitment, compensation, teaching and learning environments, professional development, and human resources practices and processes.

The State shall provide its detailed plan for this criterion in the text box below. The plan should include, at a minimum, the goals, activities, timelines, and responsible parties (see Reform Plan Criteria elements in Application Instructions or Section XII, Application Requirements (e), for further detail). In the text box below, the State shall describe its current status in meeting the criterion. The narrative or attachments shall also include, at a minimum, the evidence listed below, and how each piece of evidence demonstrates the State's success in meeting the criterion. The narrative and attachments may also include any additional information the State believes will be helpful to peer reviewers. For attachments included in the Appendix, note in the narrative the location where the attachments can be found.

Evidence for (D3i):

- Definitions of high-minority and low-minority schools as defined by the State for the purposes of the State's Teacher Equity Plan.

Recommended maximum response length: Three pages

D.3 Ensuring equitable distribution of effective teachers and principals

The fact that NC does not have effective teachers in every classroom and effective principals in every school is a critical concern. We know that the least effective and novice teachers often serve students who have a history of low achievement. While staffing inequities between districts and schools are widely recognized, research in low-achieving NC districts has shown there are inequities even within individual schools; the students with higher test scores in past years tend to be assigned to the more effective teachers than their classmates in the same school (Henry *et al*., 2008).

The NC data show the depth of the equity issues. We know that the rate of unfilled teaching positions in the lowest-performing LEAs is nearly 2.5 times the overall NC rate. NC carefully monitors teacher retention rates by school and district, the relationship of teacher working conditions to retention, and many of the factors that influence retention rates in NC schools; thereby we know that overall teacher turnover is higher in the lowest-performing LEAs and schools than elsewhere (Hirsch & Emerick, 2007). We know that math, science, special education, and English Language Learning teaching positions consistently are the hardest to fill in NC, but most especially in economically distressed rural areas, where turnover over a three-year period among teachers in these subject areas is greater than 50% (Reiman *et al*., 2007). Furthermore, we recognize the need for more principals with the skills and preparation required to lead the transformation of NC's lowest-achieving schools (NC State Board of Education, 2008; Public School Forum of NC, 2009).

In addition, we believe that teacher and principal effectiveness is not necessarily transferable across contexts. For example, a teacher who is highly effective with high-achieving, English-speaking students in an economically stable, suburban community may not be effective with low-achieving, limited-English-proficient (LEP) students in an economically distressed rural area. Similarly, a principal who can effectively sustain and improve a well-functioning suburban school may not be well-prepared to lead the changes required to transform a low-performing, high-minority, high-poverty school into a successful one. (See Appendix 30 and Appendix 31 for a NC specific definition of high-minority and low-minority schools.)

These core problems cannot be addressed successfully by just rebalancing the distribution of a limited number of effective

educators. Rather, we need to address the distribution issues while ensuring that effective teachers already in low-performing schools are retained and aggressively increasing the number of effective educators available to ensure that all students have effective teachers and all schools have effective principals. NC has already taken steps to address this need. For example, since 2004 North Carolina Department of Public Instruction has partnered with Teachers-Teachers.com to manage a statewide educator recruitment initiative. This initiative was established to help all North Carolina school districts and charter schools recruit highly qualified teachers and administrators by giving them access to a nationwide pool of qualified job seekers. By giving all LEAs equal access to this nationwide pool, North Carolina makes an important step toward providing for the equitable distribution of highly qualified educators.

Within RttT, our approach to address these critical needs, described in this section and in Sections D4 and D5, includes initiatives that will: 1) provide special programs to recruit, prepare and retain new principals and teachers specifically for low-achieving schools; 2) expand university-LEA partnerships to address local LEA needs for teachers and administrators; 3) employ *strategic staffing* initiatives that provide incentives for highly effective educators, both principals and teachers, to put their skills to use where they are most needed to improve low-performing schools; 4) make virtual and blended courses with highly effective online teachers available to students in schools with limited course and teacher availability; 5) improve the effectiveness of teacher and administrator preparation programs (addressed in Section D4); and 6) provide extensive professional development for teachers and administrators throughout NC to improve and update the entire NC education workforce (addressed in Section D5). We view the initiatives in Sections D3, D4, and D5 as closely interrelated in addressing the criteria for these sections, but have placed each initiative in the section for which it is most directly relevant. Five specific initiatives are described in the remainder of this section.

1. Develop and implement Regional Leadership Academies to recruit, prepare, and support principals to turn around low-performing schools.

The NC *RttT* Regional Leadership Academies (RLAs) project will directly address the need to recruit, prepare, and support leaders of transformational change in challenging school contexts (see Appendix 15 for NC SBE Resolution which commits NC to the development of RLAs). It will involve a partnership of UNC Colleges of Education, the NC Department of Public Instruction (NCDPI), the NC Association of School Administrators, the NC Association of Educators (NCAE), and the LEAs in which the principals will serve. Drs. Bonnie Fusarelli and Matt Militello of NC State University (NCSU) and Dr. Shirley Prince of the NC Association of School Administrators, along with representatives from the NCDPI, NCAE, and LEAs will lead the planning and implementation. The work will be enhanced by a partnership with the New York City (NYC) Leadership Academy and with the support from national leaders who bring the lessons from the school leadership studies commissioned by the Wallace Foundation (Drs. Michelle LaPointe and Tricia Browne-Ferrigno).

The NC RLAs will work with school districts to prepare individuals to fill projected school leadership positions. They will afford school leaders the opportunity to obtain principal licensure, continuing education credits for license renewal, and specialty add-on licenses in the areas of low-performing school turnaround administration, rural school administration, and urban school administration. The RLAs will serve aspiring school leaders by providing a customized, comprehensive, research-based program that will position them to impact positively the schools in which they will work. In addition, RLAs will provide opportunities to enhance the practice of current school leaders through relevant, timely professional development tailored to address critical needs as identified by principals through the NC Teacher Working Conditions Survey, the NC Principals Evaluation data, and other information.

The curricula administered through RLAs will be based on characteristics of strong educational leadership programs as evidenced by research literature and exemplary models (*e.g.*, Davis *et al.*, 2005; Hale & Moorman, 2003; New Leaders for New Schools, 2008). Aspiring principals will be led through a preparation program (aligned to the NC Standards for School Executives)

that includes the following components:

- *Rigorous recruitment processes using selection criteria based upon demonstrated effectiveness with students and colleagues and other factors*, leveraging lessons learned from the NYC Leadership Academy, the New Leaders for New Schools programs, and other programs;
- *Cohort-based experiences*, with aspiring school leaders participating in cohorts of 20-25 peers, to enable the development of a meaningful professional learning community. Evidence of the advantages of cohort models is provided by Davis *et al*., 2005; Dorn *et al*., 1995; Muth & Barnett, 2001; and other researchers;
- *An action-research, case-study curriculum focus*, which will engage participants in addressing issues similar to those they will face on the job, working through relevant data, problem identification, consideration of alternative solutions, and decision-making. The action-research projects and cases will be aligned with the NC Standards for School Executives and will be tied to educational leadership literature and research. They will be based on the types of specific school context in which participants are being prepared to work, with different cases projects and cases used in rural and urban academies;
- *Multi-faceted support structure,* involving an executive coach, a mentor with extensive school leadership experience, and an RLA supervisor. Through this highly supportive and reflective approach, aspiring school leaders will gain both the inter- and intra-personal lessons of leadership. They will learn new ways to practice and reflect and, in the process, new strategies for enriching leadership in their schools in ways that have an immediate impact on teaching practices and student learning. The coaches, mentors, and supervisors will be carefully selected and provided with initial training and ongoing support from both UNC faculty and collaborations with their peers;
- *Clinical residency experience*, which will span an entire school year and engage participants in meaningful activities under the direction of an on-site principal mentor, an RLA supervisor, and an executive coach. As a primary component of the RLA experience, supervised clinical residencies will allow aspiring school leaders to apply theories, procedures, and skills learned in the RLA classroom settings to authentic situations (Cordeiro & Smith-Sloan, 1995; Murphy, 1992, 2002) and will facilitate

growth in their educational orientation, perspectives, concepts, language, and skills (Crow and Matthews, 1998);

- *Job placement and induction support*, with the RLA working with the participating school districts to ensure appropriate matches of aspiring leaders to the schools in which they are placed and to continue professional development through a two-year induction period, during which RLA principals continue to engage with their cohort, coach, mentor, and supervisor in furthering their leadership skills. RLAs will provide ongoing support to help RLA principals address the on-the-job challenges they face; and
- *Ongoing professional development and support services*, specifically focused on the challenges of leading transformation changes in low-performing and other high-needs schools.

The RLAs will also provide professional development programs for current principals of low-achieving schools in their regions. These programs will build upon the same principles described above, but they will be adapted for delivery via monthly workshops, summer sessions, and online interactions to fit the schedules of working principals. Some sessions will combine aspiring and practicing principals in activities that will benefit both.

Planning for the RLAs is under way, with support from the Bill & Melinda Gates Foundation and the Z. Smith Reynolds Foundation. We will develop three regional academies with *RttT* support, building upon the planning supported by other funders. The first will begin during the summer of 2010 in NC's northeast region to serve the low-achieving rural schools clustered in that region. The locations of the subsequent *RttT* RLAs have not yet been determined. When fully operational by 2011-12, these Academies will prepare about 75 new principals each year. These RLAs will be demonstration sites that will both serve as models for additional RLAs and inform program development and improvement in other university-LEA partnerships.

2. Continue to develop and refine university-LEA partnerships to recruit, prepare, and support teachers for the specific needs of each LEA.

The President of the 16-campus UNC system, Erskine Bowles, has prioritized the development of regional university-LEA innovative partnerships that target the specific staffing needs of each LEA. The goal is to develop strong collaborations of each of the UNC campuses, involving both their Colleges of Education and their relevant disciplinary programs, with the LEAs in their regions and, in some cases, other community and/or business partners. Most of the 115 LEAs in NC are actively involved in partnerships with one or more of the UNC campuses (see map in Appendix 32), and outreach to every LEA is expected in the next year. In addition, Colleges of Education in NC independent institutes of higher education (IHEs) are also engaged in forming partnerships with LEAs, and LEAs may choose to use their *RttT* funding to extend those as well as the partnerships with UNC campuses.

The collaborating partners design and implement customized programs that address the continuum of recruitment, pre-service preparation, induction, and ongoing support for teachers. Each program focuses on meeting the needs of the participating districts and makes use of local data about hard-to-fill subjects and specialty areas. Plans include the development of programs that are designed to prepare teachers for the contexts in which they will work. For example, one program in a region with increasing numbers of LEP students will seek to recruit teachers fluent in the native languages of those students and also prepare teachers for differentiating instruction for students who are learning English.

Program enhancements within *RttT* will include cohort-based approaches that provide ongoing professional learning communities for the participants. In some partnerships, university courses are provided during the school year in the region as well as online, along with summer programs held on the college campus. The recruitment process seeks out individuals with backgrounds in high-need content areas and the skills and dispositions necessary for success in the classroom. The pre-service component will involve extended internships with highly effective veteran teachers, with feedback and coaching from both university faculty and district teacher leaders through direct and virtual classroom observations (using the technology for

unobtrusive recording and virtual review of classroom interactions being developed by the Bill & Melinda Gates Foundation-funded, national Teacher Evaluation Project). These partnerships leverage the expertise and experience of IHE faculty, National Board Certified Teachers, and other teacher leaders from the districts. They will also leverage the expansion of the NC Teaching Fellows program to provide additional scholarships and special preparation programs for college students who commit to teach in low performing schools into a special preparation program.

Within the framework of these university-LEA partnerships, *RttT* funding will support the development and implementation of a new program designed specifically to serve rural districts with low-performing and/or high-minority or high-poverty schools, with a special focus on recruiting, preparing, and supporting mathematics and science teachers for these regions. This program, the Teachers for Rural Schools Initiative (TRSI), will address five critical needs for schools in targeted rural districts:

- Extending the NCAE Teacher Cadet program to engage middle and high school students interested in teaching and recruit them into teacher preparation programs.
- Recruiting high-quality teacher candidates who are well suited to teaching high-need rural students and who are likely to remain in high-needs rural schools;
- Providing incentives, in the form of tuition and fees, laptops computers, and stipends, to help recruit strong candidates and in return for a three-year teaching commitment in rural schools from those candidates;
- Preparing candidates in the use of high-leverage educational practices that successfully support the learning of the full range of students in these schools;
- Providing targeted induction programs to enable teachers to be effective during their first three years in the classroom; and
- Increasing retention rates through positive school working conditions, coaching/mentoring, professional learning communities, professional growth and leadership opportunities, and community support and engagement.

The TRSI will bring together best practices and research- and field-based expertise available in the rural LEAs and UNC system, along with the NCDPI District and School Transformation (DST) Team (described further in Section E2) and four non-profit

organizations that provide Alternative Teacher Education Programs (Teach for America, The New Teacher Center, the NC Center for the Advancement of Teaching, and the NC New Schools Project See Appendix 33 for further information about each of the partner organizations). This initiative is designed to move beyond the debate about the comparative value of different approaches to teacher preparation (D'Agostino & Powers, 2009; Darling-Hammond, 2009; Donaldson, 2008; Xu *et al*., 2007) to an approach that leverages the combined expertise and strategies of these multiple approaches.

The *RttT*-supported TRSI will be led by a team from the NCSU College of Education, working with colleagues from LEAs, IHEs, and community colleges in rural districts in NC's northeast region. These districts contain many of NC's highest-poverty communities and the lowest-achieving schools. After the first year of program design, curriculum development, implementation planning, and candidate recruitment, the TRSI will recruit, prepare, and support 90 new teachers per year, for each of years 2-4 of the *RttT* grant. It will be a proof-of-concept and demonstration site that will both serve as a model for additional rural initiatives in other parts of NC and inform program development and improvement in other university-LEA partnerships.

3. Increase the number of Teach for America teachers in high-need rural and urban schools.

Teach for America (TFA) teachers serve in many of the highest-need schools in NC, based upon student achievement levels and the number of students eligible for free or reduced-price lunches. Since the TFA program is designed to meet the needs of the schools and districts it serves, TFA teachers often serve in the high-need subject and specialty areas: over half teach math, science, special education, or English as a second language. The findings of a 2007 Urban Institute study (Xu *et al.*, 2007) using NC high school student exam data from 2000 through 2006 show that TFA teachers are more effective, as measured by student exam performance, than traditional teachers. The positive TFA results are robust across subject areas, but are particularly strong for math and science classes. In addition, TFA retention rates are comparable to those of other new teachers in these schools (Xu *et al*., 2007). Expanding TFA in NC through *RttT* support will facilitate the equitable distribution of effective teachers in high-need schools and hard-to-staff content areas in both rural and urban LEAs.

TFA members must receive a teaching credential before they are hired by school districts or individual schools, and, like all

lateral entry teachers in NC, they must meet specific requirements to be considered "highly qualified," as defined by federal law. Currently, all TFA members in NC participate in a customized licensure cohort with one of two university partners, East Carolina University or UNC-Charlotte. These programs combine TFA's required professional development with practical, applied coursework and enable TFA teachers to work toward their Standard Professional I licenses. NC has demonstrated strong support for TFA for many years, and the organization currently has a $900,000 recurring allocation from NC, split between the Eastern (largely rural) region, which currently has 165 TFA teachers, and the Charlotte (urban) region, which currently has 230 TFA teachers.

With the *RttT* Initiatives, TFA will collaborate with UNC campuses and private universities in NC to add a focus on recruiting highly qualified graduates of NC IHEs who have family or other links to the communities of high-need schools to serve in those schools. The program will also recruit professionals interested in transitioning into teaching, including those who enter teaching through the Troops to Teachers (TTT) program, a potentially growing source for teachers in NC, given the large and growing military bases in NC. We will add additional incentives to recruit TFA teachers, in the form of either forgiveness of some student loans for each year of teaching and/or tuition for obtaining a Master's degree in education, educational administration, or the content area in which they teach. We plan to increase the number of TFA teachers in NC schools from about 395 during the 2009-10 school year to about 550 over the next four years, with the major expansion taking place in low-performing rural schools in coordination with the school turnaround plans described in Section E2. Experienced TFA teachers will be one group from which candidates for the RLAs described above will be recruited.

4. Support LEAs in developing and implementing strategic staffing initiatives.

In addition to recruiting, preparing, and retaining new teachers in low-achieving schools, it is also critical to have substantial numbers of experienced teachers with proven track records in these settings to provide a balanced staff and opportunities for experienced teachers to contribute to professional learning communities, community relations, and school leadership. We also note the recent research showing significant peer effects on teachers, which suggest that high-achieving teachers have positive impacts on their colleagues and therefore on all the students in the school (Jackson & Bruegmann, in press). Providing experienced, highly

qualified staff where they are needed most is the core goal of *strategic staffing* approaches. Several strategic staffing initiatives are underway in NC, through either federal Teacher Incentive Fund grants or NC funding. For example, in an innovative strategic staffing initiative in Charlotte-Mecklenburg Schools, a highly effective principal recruited to move to a low-performing school can select five teachers to move with her or him, and she or he also can select five staff in the low-performing school to be moved elsewhere. In the NC-funded Collaborative project, financial incentives are provided to teachers and principals to move to or stay in high-need rural schools, through incentive bonuses for recruitment, retention, student achievement gains, and professional activities. This project is concerned with both retaining high-achieving teachers already in these schools as well as attracting more such teachers. Other programs, such as one in Davie County, provide housing and other incentives to attract qualified teachers, while others focus on working conditions and leadership roles, which have been shown to be very important factors influencing teacher retention (Carroll, 2007; Reiman *et al.*, 2007).

Within the NC *RttT* initiatives, and in collaboration with the NC STEM Community Collaborative, the NCDPI will encourage and support LEAs and their communities in planning and implementing strategic staffing initiatives to meet their local needs. We know that these types of strategies must be locally based. For example, strategies in an urban district may be able to encourage individuals to move from a higher-achieving school to help improve a lower-achieving school, while in rural regions it may be necessary to incent individuals to relocate from another area of NC. Support for LEA strategic staffing initiatives will include the following:

- Engage the Strategic Management of Human Capital in Education group from the Center for Policy Research in Education and the National Commission for Teaching and America's Future to provide workshops and consulting to LEAs about strategic staffing strategies. These organizations have been selected as national leaders in research-based work in this area, with the first focusing largely on incentive models and the second focused on the effective use of teaming and community resources;
- Foster collaborations with the Bill & Melinda Gates Foundation-funded NC STEM Community Collaboratives in communities that are interested in considering strategic staffing initiatives;

- Share information during LEA leadership institutes (see Section D5) about current strategic staffing initiatives and their results, both from within NC and from other states;
- Provide partial funding from NC *RttT* funds to help cover the LEA costs of developing, implementing, and/or expanding local strategic staffing initiatives;
- Involve the NC Network of Grantmakers, which comprises the major foundations funding education projects in NC and is "willing to partner with the state to develop or expand programs that provide incentives in hard-to-staff subject areas and schools or that reward teachers based on performance and contributions, with the goal of identifying model practices that can be incorporated into the statewide or local compensation system." They have also expressed interest in exploring approaches that involve affordable housing, leadership opportunities, part-time arrangements with content experts from industry, education loan forgiveness programs, and others. The NCDPI will work with the LEAs and NC Grantmakers to further strategic staffing initiatives in NC; and
- Provide evaluations of the costs and benefits of the local strategic staffing initiatives to inform decisions about whether they should be extended, modified, or discontinued.

5. Provide effective teachers via virtual and blended courses.

Established by the NC eLearning Commission in 2005, the NC Virtual Public School (NCVPS) provides courses that augment those available locally to equalize educational opportunities statewide and, in many cases, provide an effective online teacher when a qualified teacher is not available locally. The NCVPS is committed to raising achievement and closing learning gaps with 21st-century innovation by providing access to world-class learning opportunities for all NC students.

As of the fall of 2009, the NCVPS offers 72 courses ranging from AP and other college credit courses, to honors and general courses in Math, Science, English, Social Studies, World Languages, Arts, CTE, and Healthful Living, to courses for credit recovery. Since its inception in 2007, the NCVPS has served over 60,000 students and is now second only to Florida in terms of enrollment in a state Virtual School.

The NCVPS employs over 300 adjunct teachers, all of whom are certified to teach in NC and are considered highly qualified by the *No Child Left Behind* criteria. The teachers receive special training in online teaching and a range of interactive technologies to engage 21st century learners, including video, interactive whiteboards, wikis, active worlds, and online discussion tools. An independent evaluation shows that student achievement is comparable or exceeds the achievement of students in traditional courses (Oliver *et al.*, 2009).

Virtual course delivery enables teaching across time and distance, so specialists in hard-to-staff topics can provide courses to schools in which a qualified teacher is not available. This enhanced availability also expands the population of potential teachers, since teachers can take on virtual course duties for additional compensation and qualified retired teachers can teach online in a part-time position. Some teachers have found that they prefer to teach online and can thereby serve students across multiple schools. In most cases, a blended model is used (in which an onsite facilitator monitors student work and is available to meet with individual students), rather than a pure virtual model.

NC has made a substantial financial commitment to the NCVPS, with NC funding of more than $31 million from 2006-10, and this support will continue. As one of our *RttT* Initiatives, we will expand virtual school courses and the pool of teachers, with a specific goal of improving learning opportunities for students in low-achieving schools. Specifically, *RttT* funding will enable the NCVPS to develop and deliver additional virtual courses in mathematics and science areas that are required for high school graduation. These courses will be designed specifically for low-performing students who are at risk of failure in these courses, so would provide levels of support for students learning, pacing, and structuring designed specifically for this student population. Teachers selected for these courses will have had prior success working with at-risk students. The NCVPS will also work with the participating LEAs and schools to provide for onsite monitoring and, when necessary, tutoring (either online or onsite) to further support the students. These targeted virtual courses will ensure that students in low-achieving schools have access to effective teachers, quality course content designed to meet their needs, and additional supports to help them successfully complete the courses.

Performance Measures for (D)(3)(i)	Actual Data: Baseline (Current school year or most recent)	End of SY 2010-2011	End of SY 2011-2012	End of SY 2012-2013	End of SY 2013-2014	
General goals to be provided at time of application:	**Baseline data and annual targets (*teachers*)**					
Percentage (and number) of teachers in schools that are high-poverty, high-minority, or both (as defined in this notice) who are highly effective (as defined in this notice).	20.6	21.2	21.9	22.5	***23.2***	Elem
	(1,391)	(1,433)	(1,476)	(1,520)	(1,566)	
	17.6	18.2	18.7	19.3	***19.9***	Mid
	(573)	(590)	(608)	(626)	(645)	
	23.9	24.6	25.3	26.1	***26.9***	High
	(668)	(688)	(709)	(730)	(752)	
Percentage (and number) of teachers in schools that are low-poverty, low-minority, or both (as defined in this notice) who are highly effective (as defined in this notice).	30.3	31.2	32.1	33.1	***34.1***	Elem
	(2,955)	(3,044)	(3,135)	(3,229)	(3,326)	
	33.3	34.3	35.4	36.4	***37.5***	Mid
	(1,481)	(1,525)	(1,571)	(1,618)	(1,667)	
	25.5	26.3	27.1	27.9	***28.7***	High
	(972)	(1,001)	(1,031)	(1,062)	(1,094)	
Percentage (and number) of teachers in schools that are high-poverty, high-minority, or both (as defined in this notice) who are ineffective.	30.8	27.7	24.9	22.4	***20.2***	Elem
	(2,075)	(1,868)	(1,681)	(1,513)	(1,361)	
	32.9	29.6	26.6	24.0	***21.6***	Mid
	(1,068)	(961)	(865)	(779)	(701)	
	29.9	26.9	24.2	21.8	***19.6***	High
	(838)	(754)	(679)	(611)	(550)	
Percentage (and number) of teachers in schools that are low-poverty, low-minority, or both (as defined in this notice) who are ineffective.	19.4	17.5	15.7	14.1	***12.7***	Elem
	(1,893)	(1,704)	(1,533)	(1,380)	(1,242)	
	18.0	16.2	14.6	13.1	***11.8***	Mid
	(801)	(721)	(649)	(584)	(526)	
	23.3	20.9	18.8	17.0	***15.3***	High
	(887)	(798)	(718)	(647)	(582)	

Performance Measures for (D)(3)(i)	Actual Data: Baseline (Current school year or most recent)	End of SY 2010-2011	End of SY 2011-2012	End of SY 2012-2013	End of SY 2013-2014	
General goals to be provided at time of application:	**Baseline data and annual targets (*principals*)**					
	Reading					
Percentage (and number) of principals leading schools that are high-poverty, high-minority, or both (as defined in this notice) who are highly effective (as defined in this notice).	15.1	15.5	16.0	16.5	***17.0***	Elem
	(59)	(61)	(63)	(64)	(66)	
	16.7	17.2	17.7	18.2	***18.8***	Mid
	(25)	(26)	(27)	(27)	(28)	
	26.1	26.9	27.7	28.6	***29.4***	High
	(40)	(41)	(42)	(44)	(45)	
Percentage (and number) of principals leading schools that are low-poverty, low-minority, or both (as defined in this notice) who are highly effective (as defined in this notice).	35.9	37.0	38.1	39.3	***40.4***	Elem
	(171)	(176)	(181)	(187)	(192)	
	30.6	31.5	32.5	33.4	***34.4***	Mid
	(56)	(58)	(59)	(61)	(63)	
	18.8	19.3	19.9	20.5	***21.1***	High
	(34)	(35)	(36)	(37)	(38)	
Percentage (and number) of principals leading schools that are high-poverty, high-minority, or both (as defined in this notice) who are ineffective.	32.0	28.8	25.9	23.3	***21.0***	Elem
	(125)	(113)	(101)	(91)	(82)	
	35.3	31.8	28.6	25.8	***23.2***	Mid
	(53)	(48)	(43)	(39)	(35)	
	26.1	23.5	21.2	19.1	***17.2***	High
	(40)	(36)	(32)	(29)	(26)	
Percentage (and number) of principals leading schools that are low-poverty, low-minority, or both (as defined in this notice) who are ineffective.	13.4	12.1	10.9	9.8	***8.8***	Elem
	(64)	(58)	(52)	(47)	(42)	
	15.8	14.3	12.8	11.6	***10.4***	Mid
	(29)	(26)	(23)	(21)	(19)	
	24.3	21.9	19.7	17.7	***15.9***	High
	(44)	(40)	(36)	(32)	(29)	

Performance Measures for (D)(3)(i)	Actual Data: Baseline (Current school year or most recent)	End of SY 2010-2011	End of SY 2011-2012	End of SY 2012-2013	End of SY 2013-2014	
General goals to be provided at time of application:	**Baseline data and annual targets (*principals*)**					
	Math					
Percentage (and number) of principals leading schools that are high-poverty, high-minority, or both (as defined in this notice) who are highly effective (as defined in this notice).	22.5	23.2	23.9	24.6	***25.3***	Elem
	(88)	(91)	(93)	(96)	(99)	
	15.3	15.8	16.3	16.8	***17.3***	Mid
	(23)	(24)	(24)	(25)	(26)	
	21.9	22.5	23.2	23.9	***24.6***	High
	(35)	(36)	(37)	(38)	(39)	
Percentage (and number) of principals leading schools that are low-poverty, low-minority, or both (as defined in this notice) who are highly effective (as defined in this notice).	31.3	32.2	33.2	34.2	***35.2***	Elem
	(149)	(153)	(158)	(163)	(168)	
	37.7	38.8	40.0	41.2	***42.4***	Mid
	(69)	(71)	(73)	(75)	(78)	
	21.6	22.2	22.9	23.6	***24.3***	High
	(41)	(42)	(43)	(45)	(46)	
Percentage (and number) of principals leading schools that are high-poverty, high-minority, or both (as defined in this notice) who are ineffective.	26.3	23.7	21.3	19.2	***17.3***	Elem
	(103)	(93)	(83)	(75)	(68)	
	31.3	28.2	25.4	22.8	***20.6***	Mid
	(47)	(42)	(38)	(34)	(31)	
	31.9	28.7	25.8	23.2	***20.9***	High
	(51)	(46)	(41)	(37)	(33)	
Percentage (and number) of principals leading schools that are low-poverty, low-minority, or both (as defined in this notice) who are ineffective.	19.1	17.2	15.5	13.9	***12.5***	Elem
	(91)	(82)	(74)	(66)	(60)	
	14.2	12.8	11.5	10.4	***9.3***	Mid
	(26)	(23)	(21)	(19)	(17)	
	21.6	19.4	17.5	15.7	***14.2***	High
	(41)	(37)	(33)	(30)	(27)	

Performance Measures for (D)(3)(i)	Actual Data: Baseline (Current school year or most recent)	End of SY 2010-2011	End of SY 2011-2012	End of SY 2012-2013	End of SY 2013-2014	
General goals to be provided at time of application:	**Baseline data and annual targets (*principals*)**					
	Science					
Percentage (and number) of principals leading schools that are high-poverty, high-minority, or both (as defined in this notice) who are highly effective (as defined in this notice).	12.2	12.5	12.9	13.3	***13.7***	Elem
	(45)	(46)	(48)	(49)	(51)	
	7.4	7.7	7.9	8.1	***8.4***	Mid
	(11)	(11)	(12)	(12)	(12)	
	20.1	20.7	21.4	22.0	***22.7***	High
	(32)	(33)	(34)	(35)	(36)	
Percentage (and number) of principals leading schools that are low-poverty, low-minority, or both (as defined in this notice) who are highly effective (as defined in this notice).	35.9	37.0	38.1	39.2	***40.4***	Elem
	(167)	(172)	(177)	(182)	(188)	
	38.0	39.1	40.3	41.5	***42.8***	Mid
	(68)	(70)	(72)	(74)	(77)	
	27.8	28.7	29.5	30.4	***31.3***	High
	(54)	(56)	(57)	(59)	(61)	
Percentage (and number) of principals leading schools that are high-poverty, high-minority, or both (as defined in this notice) who are ineffective.	38.1	34.3	30.9	27.8	***25.0***	Elem
	(141)	(127)	(114)	(103)	(93)	
	48.0	43.2	38.9	35.0	***31.5***	Mid
	(71)	(64)	(58)	(52)	(47)	
	27.7	24.9	22.4	20.2	***18.2***	High
	(44)	(40)	(36)	(32)	(29)	
Percentage (and number) of principals leading schools that are low-poverty, low-minority, or both (as defined in this notice) who are ineffective.	13.8	12.4	11.1	10.0	***9.0***	Elem
	(64)	(58)	(52)	(47)	(42)	
	9.5	8.5	7.7	6.9	***6.2***	Mid
	(17)	(15)	(14)	(12)	(11)	
	22.2	19.9	18.0	16.2	***14.5***	High
	(43)	(39)	(35)	(31)	(28)	

Notes for (D)(3)(i)

As noted in the response to criterion D(2), results from all LEAs of the new Teacher Evaluation Process (TEP) will not be available until the completion of the 2009-2010 school year. Also as noted in the response to that criterion, every teacher and principal evaluation will not include pre-approved student growth measures until 2010-2011. Since TEP results are not yet available statewide, and since all valid student growth measures were not in use across all LEAs for the 2009-2010 school year, the figures presented in this table of proportions of highly effective and ineffective teachers (as well as the proposed targets) are based solely on EVAAS estimations of teacher effectiveness in subjects currently tested by the state. Furthermore, assessment data used in this process did not include re-test data. As a result, these estimations represent only approximations of the true proportion of highly effective and ineffective teachers across all subjects statewide. A more precise baseline will be established (and more accurate targets will be set) at the end of the 2010-2011 school year, after the first complete statewide collection and aggregation of measures of teacher and principal effectiveness that include student growth measures.

Projections reflect goals of 10% decreases per year in the number of ineffective teachers and principals for each category, and 3% increases per year in the number of highly effective teachers and principals for each category; projections assume a greater movement of teachers from ineffective to effective status than from effective to highly effective status. Projections also assume static teacher and principal populations; targets will be adjusted to match growth in teacher and principal populations. Principal baselines and targets are disaggregated by school-level performance on math, reading, and science tests. Estimations are based on the following tests: EOG reading (grades 3-8), mathematics (grades 3-8), and science (grades 5 and 8) tests; EOC Algebra I and II, Geometry, English I, Physical Science, Biology, Chemistry, Physics, Civics & Economics, and US History. Principal effectiveness is estimated based on overall school performance on applicable tests for reading, mathematics, and science.

Note: By virtue of the *RTTT* designations, a small number of teachers (*e.g.*, teachers in schools that are high-minority but low-poverty, or low-minority but high-poverty) are double-counted.

General data to be provided at time of application:	
Total number of schools that are high-poverty, high-minority, or both (as defined in this notice).	805
Total number of schools that are low-poverty, low-minority, or both (as defined in this notice).	965
Total number of teachers in schools that are high-poverty, high-minority, or both (as defined in this notice).	30,656
Total number of teachers in schools that are low-poverty, low-minority, or both (as defined in this notice).	39,212
Total number of principals leading schools that are high-poverty, high-minority, or both (as defined in this notice).	805
Total number of principals leading schools that are low-poverty, low-minority, or both (as defined in this notice).	965

High-poverty = top quartile of schools ranked by proportion of students applying for free and reduced-price lunch; ***high-minority*** = top quartile of schools ranked by proportion of non-white students

Performance Measures for (D)(3)(ii)	Actual Data: Baseline (Current school year or most recent)	End of SY 2010-2011	End of SY 2011-2012	End of SY 2012-2013	End of SY 2013-2014	
General goals to be provided at time of application:	**Baseline data and annual targets**					
Percentage of mathematics teachers who were evaluated as effective or better.	75.0	77.3	79.6	82.0	***84.4***	Elem
	(6,990)	(7,200)	(7,416)	(7,638)	(7,867)	
	75.0	77.3	79.6	82.0	***84.4***	Mid
	(3,913)	(4,030)	(4,151)	(4,276)	(4,404)	
	75.0	77.3	79.6	82.0	***84.4***	High
	(3,225)	(3,322)	(3,421)	(3,524)	(3,630)	
Percentage of science teachers who were evaluated as effective or better.	75.0	77.3	79.6	82.0	***84.4***	Elem
	(3,276)	(3,374)	(3,476)	(3,580)	(3,687)	
	75.1	77.3	79.6	82.0	***84.5***	Mid
	(906)	(933)	(961)	(990)	(1,020)	
	75.1	77.3	79.7	82.0	***84.5***	High
	(2,329)	(2,399)	(2,471)	(2,545)	(2,621)	
Percentage of special education teachers who were evaluated as effective or better.	N/A	TBD	TBD	TBD	TBD	
Percentage of teachers in language instruction educational programs who were evaluated as effective or better.	N/A	TBD	TBD	TBD	TBD	

See main text for Sub-section D(2) and note above re: projection principles and limitations in current estimations of effectiveness. The effectiveness of teachers in currently untested subjects and fields (in this case, special education and language instruction teachers) will not be fully estimatable before the 2010-2011 school year. Current estimations of mathematics and science teacher effectiveness are limited to teachers of tested mathematics and science courses. Estimations for mathematics are based on EOG tests for grades 3-8 and EOC tests for Algebra I, Algebra II, and Geometry. Estimations for science are based on EOG tests for grades 5 and 8 and EOC tests for Physical Science, Biology, Chemistry, and Physics.

General data to be provided at time of application:	
Total number of mathematics teachers.	12,193
Total number of science teachers.	9,358
Total number of special education teachers.	6,605
Total number of teachers in language instruction educ. progs.	932

(D4) Improving the effectiveness of teacher and principal preparation programs *(14 points)*

The extent to which the State has a high-quality plan and ambitious yet achievable annual targets to—

(i) Link student achievement and student growth (both as defined in this notice) data to the students' teachers and principals, to link this information to the in-State programs where those teachers and principals were prepared for credentialing, and to publicly report the data for each credentialing program in the State; and

(ii) Expand preparation and credentialing options and programs that are successful at producing effective teachers and principals (both as defined in this notice).

The State shall provide its detailed plan for this criterion in the text box below. The plan should include, at a minimum, the goals, activities, timelines, and responsible parties (see Reform Plan Criteria elements in Application Instructions or Section XII, Application Requirements (e), for further detail). Any supporting evidence the State believes will be helpful to peer reviewers must be described and, where relevant, included in the Appendix. For attachments included in the Appendix, note in the narrative the location where the attachments can be found.

Recommended maximum response length: One page

D.4. Improving the Effectiveness of Teacher and Principal Preparation Programs

D.4.i. Linking Student Achievement Data to Educator Preparation Programs

Linkage of student achievement and growth data to teachers and principals is addressed above in Section D2. As with those efforts, much of the work toward linking student data to in-state preparation programs also is already well underway. The UNC General Administration (UNC-GA), in close partnership with constituent UNC institutions that prepare teachers and principals, has completed the first phase of a new value-added accountability model for educator preparation programs, a primary component of which is an assessment of the impact of teacher preparation program graduates on student learning at the elementary, middle, and secondary levels. This initiative – one of the first of its kind in the country – examines program impact across all grade levels, all tested content-area subjects, and many subpopulations of students, as well as across nearly a dozen different portals of entry into the

profession (alternative and out-of-state programs, in addition to traditional in-state routes). The assessments also discern the impact of principals and other school-based professionals.

The implementation of the ABCs accountability system has provided NC with the data necessary to assess impact of graduates of educator preparation programs on student achievement. The findings from these assessments, which are disaggregated by licensure area, focus attention on programs and routes into teaching that are raising achievement, with the purpose of identifying best practices for teacher preparation programs and expanding the most effective programs. In addition, the findings identify programs and routes that need improvement in order for them to contribute effectively to NC's efforts to adequately prepare students for college and work, with the possibility of discontinuing ineffective programs. Finally, the research helps to identify preparation programs that are particularly effective with specific groups of students and thus can serve as models for emulation in efforts to improve student achievement. The availability of this research and the ability to take action based on the analysis place NC in a unique position of being able to use highly accurate evidence to strengthen preparation programs, with a goal of improving student achievement and enhancing student academic growth. These efforts complement the re-visioning work recently completed at each School of Education in response to the advent of NC's new teacher and principal standards, as noted in Section D2.

Proposed Initiatives

- UNC-GA will extend the accountability work described above to include more fine-grained and targeted assessments of the specific effects of: 1) different programs and routes into teaching; and 2) administrator preparation programs. The Masters in School Administration (MSA) programs have begun a State Board of Education-mandated re-visioning process, as well as a UNC-GA-mandated degree reauthorization process, but the work will not be complete until impact data for graduates of MSA programs are available.
- UNC-GA also will work closely with engaged and interested representatives of NC's many independent educator preparation programs to extend this work to involve them as well. A particular focus of the partnership discussions will be an effort to extend the collection of preparation program data necessary for analysis to the independent programs.

- Finally, following NC's successful ABCs Report Card system for annual reporting of AYP and other measures of school achievement, the NC Department of Public Instruction, in partnership with UNC-GA, will develop and make available publicly a complementary Institute of Higher Education report card, which will include easily understandable summaries of research results, as well as key summaries of current Title II reporting data. Additionally, UNC-GA is developing a series of focused policy briefs that describe the research and statistical models as well as the results.

D.4.ii. Expanding Successful Preparation and Credentialing Options

NC's proposed expansions of teacher and principal preparation and credentialing options are detailed in Section D3, above. Those expansions build in part on the work described in this section by focusing on extending key elements of programs whose graduates are most effective in impacting student achievement to more candidates for teacher licensure. As noted above, NC is committed to improving or, when improvement is not possible, discontinuing ineffective programs. Improving K-12 education has been a long-standing commitment of UNC President Erskine Bowles, who issued the following challenge to the UNC Deans' Council on Teacher Education in 2006, his inaugural year as president of the UNC system: "If you will agree to rationalize your program – make decisions about what is important and what is not important – and focus on the initiatives that are really good and important, then I am willing to put the education of teachers [and principals] as the number one priority of the University." President Bowles' challenge required the Deans' Council to prepare a plan to address what UNC can do to improve K-12 education by building better and stronger curricula and by preparing more and higher-quality teachers and principals via stronger, globally competitive preparation and development programs. As a result of their collective response to this challenge, UNC's efforts to prepare "more and better teachers and school leaders" have indeed become a top priority of UNC and of President Bowles' administration.

Performance Measures for (D)(4)	Actual Data: Baseline (Current school year or most recent)	End of SY 2010-2011	End of SY 2011-2012	End of SY 2012-2013	End of SY 2013-2014
General goals to be provided at time of application:	**Baseline data and annual targets**				
Percentage of *public* teacher preparation programs in the State for which the public can access data on the achievement and growth (as defined in this notice) of the graduates' students.[1]	100	100	100	100	100
Percentage of *independent* teacher preparation programs in the State for which the public can access data on the achievement and growth (as defined in this notice) of the graduates' students.	0	0	TBD[2]	TBD[2]	TBD[2]
Percentage of *public* principal preparation programs in the State for which the public can access data on the achievement and growth (as defined in this notice) of the graduates' students.	100	100	100	100	100
Percentage of *independent* principal preparation programs in the State for which the public can access data on the achievement and growth (as defined in this notice) of the graduates' students.[3]	0	0	TBD[2]	TBD[2]	TBD[2]

[1] Based on analyses of all existing EOC/EOG data; excluded is student achievement (and thus TPP analyses) for non-tested subjects.

[2] The state's independent colleges and universities (ICUs) with teacher and principal preparation programs are in the process of joining the state's efforts to complete a comprehensive P20 Data System (See main text for Section C). Once completed, the ICUs will explore ways to use the data to provide information to the public about the impact of their teacher and principal candidates.

[3] Only four ICUs have administrator preparation programs.

Performance Measures for (D)(4)	Actual Data: Baseline (Current school year or most recent)	End of SY 2010-2011	End of SY 2011-2012	End of SY 2012-2013	End of SY 2013-2014
General data to be provided at time of application:					
Total number of *public* teacher credentialing programs in the State.	15				
Total number of *independent* teacher credentialing programs in the State.	33				
Total number of *public* principal credentialing programs in the State.	13				
Total number of *independent* principal credentialing programs in the State.	4				
Total number of teachers in the State.	99,730				
Total number of principals in the State.	2,399				

(D5) Providing effective support to teachers and principals *(20 points)*

The extent to which the State, in collaboration with its participating LEAs (as defined in this notice), has a high-quality plan for its participating LEAs (as defined in this notice) to—

(i) Provide effective, data-informed professional development, coaching, induction, and common planning and collaboration time to teachers and principals that are, where appropriate, ongoing and job-embedded. Such support might focus on, for example, gathering, analyzing, and using data; designing instructional strategies for improvement; differentiating instruction; creating school environments supportive of data-informed decisions; designing instruction to meet the specific needs of high need students (as defined in this notice); and aligning systems and removing barriers to effective implementation of practices designed to improve student learning outcomes; and

(ii) Measure, evaluate, and continuously improve the effectiveness of those supports in order to improve student achievement (as defined in this notice).

The State shall provide its detailed plan for this criterion in the text box below. The plan should include, at a minimum, the goals, activities, timelines, and responsible parties (see Reform Plan Criteria elements in Application Instructions or Section XII, Application Requirements (e), for further detail). Any supporting evidence the State believes will be helpful to peer reviewers must be described and, where relevant, included in the Appendix. For attachments included in the Appendix, note in the narrative the location where the attachments can be found.

Recommended maximum response length: Five pages

D.5. Providing Effective Support to Teachers and Principals

D.5.i. Providing Effective, Data-Informed Professional Development

NC proposes to launch a comprehensive Professional Development Initiative (PDI) to increase NC's and each local education agency's (LEA) capacity to provide effective professional development. The goal of the PDI is to establish a sustainable professional development infrastructure, consisting of: 1) *a leadership cadre* distributed across NC, regional, and LEA levels; 2) *resources* (for workshops, professional learning communities, virtual courses, webinars, *etc*.) to support effective professional development activities, with the capacity to create additional resources as needed; 3) *a coordinating system and technology*

infrastructure to ensure that accessible, high-quality professional development is readily available to all educators statewide; and 4) *evaluations* of professional development activities that consider the impact of professional development activities at all levels on teaching practices and student achievement, to inform continuous improvement of PDI activities. The PDI will incorporate research-based principles of effective professional development (*e.g.*, Darling-Hammond *et al*., 2009; Garet *et al*., 2001; Penuel *et al*., 2007; Stoll *et al*., 2006), and program design and evaluation will rely on the standards of the National Staff Development Council (2001) (NSDC), the North American Council for Online Learning (2007) (NACOL), and the Southern Regional Education Board (2004) (SREB) for effective on-site and online professional development.

The PDI is designed to update the NC education workforce, helping to ensure that each of NC's 100,000 teachers and 2,400 principals has the knowledge and skills required to facilitate student achievement through the effective implementation of the new standards and assessments, data systems, instructional supports, curricula, and technologies. The initial professional development activities will be aligned with the requirements of each of the *RttT* initiatives. The PDI also will be designed to support other major state, LEA, and school priorities, as well as the educator professional growth plans developed as part of the North Carolina Educator Evaluation System (NCEES) process described in Section D2.

The SBE will provide oversight and direction to the PDI. The PDI will be led and managed by the NC Department of Public Instruction (NCDPI), which will be responsible for recruiting and coordinating a large network of content developers and professional development leaders throughout NC, using the Regional Support Model described in Section A2. To conduct the large scale of required activities, the NCDPI will place PDI staff in each of the eight NC regions, and those staff will work closely with LEA-based teams. The NCDPI also will coordinate the extensive set of professional development activities that will be required to achieve the PDI goals. We anticipate multiple contracts will be issued to professional development content developers and providers; the procurement process for these also will be managed by NCDPI.

NC already has a strong and diverse foundation of state-supported professional development programs. Some major examples include: the *NC Teacher Academy*, which was established by the NC General Assembly to provide staff development in the areas of

school improvement, core content, instructional pedagogy, and the use of technology; *National Board for Professional Teaching Standards certification* supports for teachers via release time and a 12% salary increase for successful candidates; *LEARN NC*, a program of the UNC-Chapel Hill School of Education that provides high-quality, cohort-based, online professional development courses; and *Science House*, a program of the NC State University College of Engineering that provides hands-on STEM-related professional development programs through six regional centers. These and some of the other potential NC partners in professional development are described in Appendix 4. The Regional Leadership Academies, described in Section D3, also will contribute to the planning and implementation of the PDI programs for principals. Professional development in NC is also supported by the many LEAs, colleges and universities, professional associations (*e.g.*, for teachers, teacher assistants, administrators, and school boards), and other organizations that together provide a rich array of growth opportunities for NC educators. The proposed PDI will incorporate and build on these programs to address statewide goals, as well as to potentially engage with partners from outside NC, such as the College Board for professional development targeted on advanced placement courses and the Education Development Center's eLearning for Educators program, a 10-state collaborative (of which NC is already a member) to support online professional development efforts.

NC *RttT* Professional Development Core Activities

1. Conduct ongoing professional development needs assessments.

Professional development priorities at the LEA and school levels will be identified regularly through a rigorous, ongoing needs assessment process that will analyze education reform initiatives, localized student demographic and achievement data, data from the Teacher Working Conditions (TWCS) and Student Learning Conditions Surveys, and the outcomes of the NCEES. The analyses of these data during the development of the NC *RttT* proposal have already highlighted several areas of professional development needs, including: preparation of educators to implement the new curriculum standards and assessments (Section B); support for successful statewide implementation of the NCEES (Section D2); and preparation to make effective use of data from the new longitudinal data system (Section B3) and the formative, benchmark, and diagnostic assessment system (Section C3).

2. Identify, evaluate, and, as needed, develop professional development resources.

The NCDPI will coordinate the work of a Professional Development Content Working Group for each priority area. Groups will be comprised of content experts from NCDPI, the LEAs, and colleges and universities, along with instructional designers. Each Content Working Group will identify content needed for the priority area, as well as the types of professional development resources (*e.g.*, on-site institutes, online workshops, materials to support professional learning communities) needed to support that content. The Content Working Groups will define guidelines for the review of existing professional development resources to ensure that these resources are sound in both content and approach to adult learning, based upon the NSDC, NACOL, and SREB standards mentioned above. Once this process is complete, each group will draw up plans for revising existing resources and for developing any required new resources. We anticipate leveraging existing capacity in NC for most of this content development, with a core NCDPI team responsible for coordinating, contracting, and monitoring the development. The Content Working Groups also will be responsible for designing activities that will prepare Professional Development Leaders (described below) to make effective use of the resources.

3. Recruit, prepare, and support Professional Development Leaders.

NC has many highly capable and experienced educators with the expertise to serve as coaches or mentors to their colleagues, facilitators of professional learning communities, and designers and leaders of professional development activities. The pool of potential Professional Development Leaders includes: more than 14,000 National Board Certified teachers; the many educators who have already received training and have experience in professional development leadership roles through the Teacher Academy, LEARN NC, and other NC programs; college and university faculty; educators identified as *highly effective* via the NCEES; and others who have specific expertise in the areas identified through the needs assessment process.

Potential Professional Development Leaders will be identified through an application and recommendation process. Those accepted may assume a variety of roles to meet the needs of each LEA. For example, they may become leaders of online workshops, coordinators of LEA induction and NCEES-aligned mentoring programs (see Appendix 34), or facilitators of professional learning

communities. Many will focus on specific needs, ranging from training educators on the new standards to specializing in the use of data to inform school improvement planning.

Many of the staff of the NCDPI District and School Transformation Team, described further in Section E2, serve as Professional Development Leaders for staff of NC's 132 (5%) lowest-achieving schools. The work of these individuals will be coordinated with the work of the PDI Professional Development Leaders, so that those who focus on the lowest-achieving schools can contribute to the overall work of the PDI and apply the expertise and resources of the PDI to support those schools.

4. Delivery of professional development.

4a. Conduct planning institutes for Professional Development Leaders.

Sustained professional development programs need to be implemented and monitored locally, since professional development is most successful when it is embedded in a teacher's own practice, linked to work with students, ongoing, and supported by a professional community (NSDC, 2001). Statewide resources and online professional development activities will need to be customized for local needs. To support this customization, the PDI will hold planning institutes for leadership teams from individual LEAs and from cross-district collaborative teams. These face-to-face institutes will take the leadership teams through a process for planning their local professional development programs by enabling them to:

- Learn about new state initiatives that their local professional development programs will need to address;
- Analyze local needs data and improvement plans to inform program design;
- Learn about effective practices for coaching, mentoring, induction, PLCs, and other potential program elements;
- Learn about online professional development opportunities and on-site opportunities available locally and statewide;
- Explore strategies for incentivizing educators to take part in professional development, including release time, common planning time, and stipends;
- Develop action plans for their programs, review input about their plans, and revise as appropriate; and
- Prepare to participate in the evaluation of the *RttT* PDI.

Institutes, to be held during the summers of 2010 and 2011in each of NC's eight education regions and coordinated via the Statewide System of Support (described in Section A2), will result in completion and online submission of LEA Professional Development Action Plans. They will accommodate up to five Leaders per district and 20 teams per institute, which will ensure that Leaders and teams from all 115 NC LEAs will be able to participate before the 2011-12 school year.

4b. Conduct principal institutes.

The function of the principal institutes will be to: 1) provide professional development for principals that is focused on leading change in schools; 2) update them about new state initiatives; and 3) engage them in planning and implementing school-based professional development that is aligned with the LEA Professional Development Action Plans. As with the institutes for Professional Development Leaders, principals will have access to institutes held in each of NC's eight education regions, with online follow-up activities, but they also will have access to a series of interactive, cohort-based online sessions throughout the school year. Some of the topics to be addressed include:

- Common Core and other new standards and assessments for students;
- Use of student achievement, TWC survey, Student Learning Conditions survey, teacher effectiveness, and other data to inform professional development planning;
- Incorporating NC and district offerings into school professional development plans and implementing effective models for coaching, mentoring, and professional learning communities; and
- Virtual learning for students and educators, and the use of technology to enhance and extend professional development.

Principal Institutes will be held regional each summer, with related, ongoing online activities.

4c. Ensure statewide availability of multiple professional development delivery options for teachers.

The NCDPI Educator Development & Recruitment Team, in conjunction with Statewide System of Support Regional Leads, will be tasked with ensuring that a variety of delivery options are provided to meet different needs and to provide equitable access to educators throughout NC. Delivery options for each priority area will be determined through the needs assessment and planning

processes described above, but we anticipate that the variety of options to be employed will include:

- Intensive, on-site summer institutes;
- On-site workshops scheduled during the school year;
- Online workshops that utilize: 1) cohort-based, facilitated, asynchronous approaches, or 2) self-paced, individualized approaches;
- Webinar series that address topics more focused than those covered in workshops and institutes;
- Professional learning communities with trained facilitators and resources to structure productive activities; and
- Peer coaching and mentoring, using both on-site and online observations and interactions.

5. Support the effective use of information and communications technologies.

NC is a geographically large state, with many rural districts, a strong technology infrastructure, and a successful record of using online learning approaches in high schools, colleges, and professional education settings. As indicated in several of the activities above, the PDI will make extensive use of e-learning tools to meet the professional development needs of teachers, schools, and districts. Research from a USED-funded eLearning for Educators project (Russell, 2009) and from other studies (Carey *et al.*, 2008; Dede, 2006; Treacy *et al.*, 2002) demonstrates that well-designed and -implemented online professional development workshops are not only valued by teachers but also positively impact classroom practices and student learning. The PDI will leverage the technologies made available by the proposed NC K-12 Education Cloud (described in Section A2) to strengthen professional development offerings in many ways, such as:

- Ensuring that professional development that addresses priority content is available statewide;
- Providing alternatives for educators who prefer the flexibility, pacing, and learning styles possible through online learning;
- Providing opportunities for teachers to interact with mentors and content experts when face-to-face meetings are not possible;
- Providing cost-effective and time-flexible professional development by reducing time, costs, and logistical issues;
- Engaging educators in virtual learning as students, thereby providing them with first-hand experiences that will help them

understand and employ the potential of e-learning with their students; and

- Extending and enhancing on-site workshops, professional learning communities, coaching, mentoring, classroom observations, and other components of local professional development programs through the use of online communications and resources.

D.5.ii. Conducting Evaluations of Professional Development Activities

The *RttT* evaluation group (described in Section A2) will conduct ongoing evaluations of the PDI content and activities, which will include analyses of the impact of professional development on teacher practices and student achievement. The results will be made available to the PDI, LEAs, and schools that are creating professional development plans and will be used to inform quality control, updating, and continuous improvement of the professional development programs. Key questions to be addressed in the evaluation include:

- Does PDI participation result in changes in teacher behavior and increases in student achievement, including high-needs students?
- Do all educators have equitable access to the professional development they need?
- Is the content of professional development activities of high quality, consistent with the research-based principles of effective professional development, and designed to meet the specific goals of the activities, all as determined by expert reviewers?
- Does participation in PDI lead to teacher progress on the NCEES ratings?
- Does participation in PDI lead to increases in educator ratings of the professional development available to them, as well as in overall job satisfaction and retention rates, as measured by the TWC survey and teacher retention data?
- Does participation in PDI result in changes in classroom practices by teachers and leadership/management practices by principals?
- Does the PDI take sufficient advantage of technology to increase both effectiveness and efficiency?
- To what degree are schools supporting ongoing, job-embedded professional development (*e.g.*, via professional learning communities, peer coaching, or common planning times)?

Implementation Schedule

Table 13: PDI Implementation Schedule

YEAR	NC STATUS
Summer/Fall 2010	• Begin ongoing needs analysis process for targeted Professional Development development. • Identify and recruit Professional Development Content Working Group and Professional Development Leaders. • Identify, evaluate, and, as needed, develop professional development content. • Conduct planning institutes for leadership teams and principals. • Establish new and enhance current professional development delivery options.
2011-2012	• Revise and continue to develop needed professional development content. • Conduct planning institutes for leadership teams and principals. • Continue to enhance multiple professional development delivery options. • Conduct first-year evaluation with analysis of the impact of Professional Development on teaching practices and student achievement.
2012-2013	• Implement recommendations from first-year evaluation. • Revise and continue to develop needed professional development content. • Review and revise multiple professional development delivery options. • Conduct second-year evaluation with analysis of the impact of Professional Development on teaching practices and student achievement.
2013-2014	• Implement recommendations from second-year evaluation. • Revise and continue to develop needed professional development content. • Conduct third-year evaluation with analysis of the impact of Professional Development on teaching practices and student achievement.

Sustaining the PDI

The PDI is designed to be sustained so that it can continue to impact professional development delivery beyond the *RttT* funding period. *RttT* funding will be used to develop the infrastructure, processes, resources, resource development capacity, and cadre of professional development leaders that will continue to serve NC well. The evaluation will provide data to inform decisions about which types of professional development are most effective for impacting teaching practices and student achievement. Over the *RttT*

period, NC will work on reallocating professional development funding to ensure that it supports ongoing professional development activities that have proven effective, using NC and local resources described in Section A2iv and the sustainability strategies described in Section A2v.

(E) Turning Around the Lowest-Achieving Schools *(50 total points)*

State Reform Conditions Criteria

(E1) Intervening in the lowest-achieving schools and LEAs *(10 points)*

The extent to which the State has the legal, statutory, or regulatory authority to intervene directly in the State's persistently lowest-achieving schools (as defined in this notice) and in LEAs that are in improvement or corrective action status.

In the text box below, the State shall describe its current status in meeting the criterion. The narrative or attachments shall also include, at a minimum, the evidence listed below, and how each piece of evidence demonstrates the State's success in meeting the criterion. The narrative and attachments may also include any additional information the State believes will be helpful to peer reviewers. For attachments included in the Appendix, note in the narrative the location where the attachments can be found.

Evidence for (E1):

- A description of the State's applicable laws, statutes, regulations, or other relevant legal documents.

Recommended maximum response length: One page

E.1. Intervening in the lowest-achieving schools and LEAs

The NC State Board of Education (SBE) has both legal authority and legal responsibility to intervene directly in NC's lowest-achieving schools and in local education agencies (LEAs) that are in improvement or corrective action status. The authority and responsibility are defined in the North Carolina Constitution, legislation and the North Carolina Supreme Court's decisions in *Leandro v. State, 346 N.C. 336, 348, 488 S.E.2d 249, 255* (1997) and *Hoke Cty. Bd. of Educ. v. State, 358 N.C. 605, 599 S.E.2d 365* (2004) (*Leandro*), and related superior court actions. A summary of some of the key points of these laws and decisions is provided below.

NC statutes 115C-105.37 through 115C-105.41, originally passed in 1995 and revised in 2001, provide the legal basis for state intervention in the lowest-achieving schools and districts. These statutes require the SBE to design and implement a procedure to

identify schools that fall below a criterion of student achievement and provide assistance and intervention strategies designed to improve student achievement. The statutes require an evaluation of the principal and specify that the principal must have a remediation plan or be removed if he or she had been in that position for more than two years before the school was identified as low-performing. The statutes also provide the SBE with the authority to assign a team to: (1) review and investigate all facets of school operations and assist in developing recommendations for improving student performance; (2) collaborate with school staff, central offices, and local boards of education in the design, implementation, and monitoring of a plan to alleviate problems and improve student performance; (3) make recommendations as the school develops and implements this plan; and (4) report to the local board of education, the community, and the SBE on the school's progress. Furthermore, if the school and local board fail to take appropriate steps to improve student performance, the statutes specify that:

> *The State Board shall assume all powers and duties previously conferred upon that local board and that school and shall have general control and supervision of all matters pertaining to that school until student performance at the school meets or exceeds the standards set for the school. These actions can include the appointment of an interim superintendent selected by the State Board.*

The SBE's constitutional authority and responsibility to intervene in the lowest-achieving schools and LEAs was strengthened by the North Carolina Supreme Court decisions in the *Leandro* decisions. In the *Leandro* decisions, the North Carolina Supreme Court held that: 1) the State is has the constitutional responsible to provide every student with the equal opportunity to obtain sound basic education in the North Carolina public schools; 2) student achievement as measured on standardized tests is a significant indicator of whether the opportunity to obtain a sound basic education exists within a school; and 3) it is the State's responsibility to see that: a) every classroom is staffed with a competent, certified, well-trained teacher; b) every school is led by a well-trained competent principal; and c) every school is provided, in the most cost effective manner, the resources necessary to support the effective instructional program within that school so that all children, including at-risk children, to have the

equal opportunity to obtain a sound basic education.

In March 2006, the superior court overseeing implementation of the *Leandro* decisions informed the SBE that the court would not allow a high school that had a performance composite of 55% or less for five years to remain open beyond the 2005-06 school year less: (1) the management team was replaced by a team approved by the SBE; (2) the school adopted an instructional redesign for a 21st Century High School approved by the SBE; and (3) the staff was committed to implementing the redesigned instructional program.

In addition, the SBE has adopted policies that authorize it to intervene in districts that fail to meet adequate yearly progress under NCLB (GCS-C-025).

Since 2004, the SBE has exercised its legal authority to intervene in over 700 public schools and more than 40 LEAs to improve student performance. Of particular note, in May 2009, the SBE sought and the Court approved a consent order, which authorizes the SBE to oversee decisions in personnel, finance, and curriculum and instruction in Halifax County Schools.

North Carolina's response to E2 below contains a more complete history of SBE interventions to improve student achievement in the lowest performing North Carolina public schools and LEAs.

Reform Plan Criteria

(E2) Turning around the lowest-achieving schools *(40 points)*

The extent to which the State has a high-quality plan and ambitious yet achievable annual targets to—

(i) Identify the persistently lowest-achieving schools (as defined in this notice) and, at its discretion, any non-Title I eligible secondary schools that would be considered persistently lowest-achieving schools (as defined in this notice) if they were eligible to receive Title I funds; and *(5 points)*

(ii) Support its LEAs in turning around these schools by implementing one of the four school intervention models (as described in Appendix C): turnaround model, restart model, school closure, or transformation model (provided that an LEA with more than nine persistently lowest-achieving schools may not use the transformation model for more than 50 percent of its schools). *(35 points)*

The State shall provide its detailed plan for this criterion in the text box below. The plan should include, at a minimum, the goals, activities, timelines, and responsible parties (see Reform Plan Criteria elements in Application Instructions or Section XII, Application Requirements (e), for further detail). In the text box below, the State shall describe its current status in meeting the criterion. The narrative or attachments shall also include, at a minimum, the evidence listed below, and how each piece of evidence demonstrates the State's success in meeting the criterion. The narrative and attachments may also include any additional information the State believes will be helpful to peer reviewers. For attachments included in the Appendix, note in the narrative the location where the attachments can be found.

Evidence for (E2) (please fill in table below):

- The State's historic performance on school turnaround, as evidenced by the total number of persistently lowest-achieving schools (as defined in this notice) that States or LEAs attempted to turn around in the last five years, the approach used, and the results and lessons learned to date.

Recommended maximum response length: Eight pages

E.2.i. Identifying the Persistently Lowest-Achieving Schools

In NC, the *performance composite score* for a school is the proportion of students' scores on state end-of-course and end-of-grade assessments that are at or above the proficient level. From 2006 through 2009, all high schools with a performance composite of less than 60% were classified as being in turnaround status and received NC intervention and monitoring, as described below. Appendix 35 provides the full list of the lowest-achieving schools in NC and data about each one.

For the NC *RttT* plan and related work moving forward, NC has revised the criteria for turnaround status to include not only the persistently lowest-achieving schools, but also to include the lowest-achieving schools to ensure that the lowest 5% of elementary, middle, and high schools are eligible for NC intervention and monitoring. (Note that alternative, special education, charter schools, and un-graded schools are not included.) These criteria are as follows:

- Any school in NC with a performance composite under 50%, with schools assigned to category based on predominant grade.
- Any high school in NC with a graduation rate below 60% in the prior year and one of two previous years.

Persistently lowest-achieving schools are defined as:

- The lowest 5% of any Title I schools in improvement, corrective action, or restructuring, when sorted by performance composite, that:
  - has a performance composite of 50% or less in the prior year and one of two previous years; or
  - is a high school with a graduation rate of 60% or less in the prior year and one of two previous years.
- The lowest 5% of any secondary school eligible for but not receiving Title I funds, when sorted by performance composite, that:
  - has a performance composite below 50% in the prior year and one of the two previous years; or
  - is a high school with a graduation rate below 60% in the prior year and one of two previous years.

In 2008-09, 132 schools, with approximately 69,000 students, met criteria to classify them as persistently lowest-achieving. These 64 elementary, 22 middle, and 46 high schools constitute the bottom 5% of the conventional public schools in NC. The students in these schools are overwhelmingly minority and low-income. Table 14 compares some core demographic data for the

bottom 5% with the top 5%. It is these lowest-achieving schools that will be served by the NC *RttT* Turnaround Initiative and will be eligible for support from the School Improvement Grants.

Table 14: Core Demographic Data Comparisons

	% MINORITY STUDENTS	% ECONOMICALLY DISADVANTAGED STUDENTS	% STUDENTS WITH DISABILITIES	% LIMITED ENGLISH PROFICIENT STUDENTS
Bottom 5%	85%	89%	15%	5%
Top 5%	25%	21%	9%	3%

In addition, our analysis of patterns of persistently lowest-achieving schools led us to define criteria for *persistently lowest-achieving districts*. These districts have a district-wide performance composite of less than 60% and limited support capacity, primarily due to their location in low-wealth communities and the fact that they serve a large percentage of students from low-income families. Sixteen NC LEAs fall into this category, with 15 of those in rural areas. Eight of these lowest-achieving districts are clustered in NC's rural northeast region, which has struggled economically with the decline of the region's mostly agrarian and manufacturing industries. The 16 lowest-achieving districts contain 48 of the 132 lowest-achieving schools. Appendix 36 provides a list of these districts and baseline data about each one.

E.2.ii Turning Around the Persistently Lowest-Achieving Schools in NC

In 2005, in response to judicial and executive mandates, NC began a high school turnaround initiative to restructure and improve 44 persistently low-achieving high schools. In 2006, additional high schools were added to this effort, to bring the total number engaged in a turnaround process to 66. Between 2005 and 2007, the efforts focused on high schools because performance historically has been lowest at this level, but also because resources were not available at the time to include elementary or middle schools in the effort. Intensive work with a selected set of lowest-achieving middle schools that are feeder schools to lowest-achieving high schools began in 2007-08.

In 2007, NCDPI worked with the Boston Consulting Group, supported by the Bill & Melinda Gates Foundation, to refine and extend the turnaround support process, which led to the creation of the District and School Transformation (DST) division within NCDPI. DST currently has a team of 70 full-time, primarily field-based staff, who are proven school instructional leaders. Team members have been directly engaged at district and school levels and provide NC with a strong nucleus of individuals who are well-prepared to lead the scale-up and the expansion of NC's ongoing school turnaround effort.

As described in the preceding section, many of the lowest-achieving schools in NC are in economically distressed rural areas. In 2008, DST began partnerships with six of the lowest-achieving rural districts to develop LEA capacity to increase achievement district-wide. These partnerships include work in each district's elementary and middle schools, and the comprehensive level of engagement has provided additional information about the specific needs of economically distressed rural districts.

Through the work of DST, we have learned that some turnaround strategies employed in urban districts cannot be applied directly to NC rural districts. For example, urban districts may have strong central staff to support turnaround efforts, while rural districts may lack the resources needed to develop such a staff. In an urban district, incentives can encourage highly effective teachers and principals to transfer within the district from high-achieving schools to the lowest-achieving ones. In rural low-achieving districts, there are typically insufficient numbers of high-achieving schools and highly effective staff to allow this approach to work. Recruiting from outside the district is required, but it is often difficult to attract people to relocate to distressed rural areas. Therefore, it may not be feasible to meet the staff change requirements of the turnaround model in many rural districts. As another example, urban areas often have the capacity to employ a *school closure model*, in which students are enrolled in other schools in the LEA that are higher-achieving. In a distressed rural area, it is less likely that a higher-achieving school is available within the same LEA and within a reasonable distance.

Previous Approach and Results

Appendix 37provides a list of the 66 persistently lowest-achieving high schools that DST has assisted between 2006 and 2009, along with the student achievement performance composites, graduation rates, and changes in both measures during the three-year intervention period.

In the turnaround approach that DST has applied, once a school is identified as lowest-achieving, a *comprehensive needs assessment* process is conducted. The resulting diagnosis is used to inform the process of developing a turnaround plan targeted to local needs and building upon local strengths.

The next component of the DST process is working with school and district leaders to develop and implement a school-specific turnaround plan. These plans can involve any of the turnaround models, and each also involves one or more change partners, as outlined in Appendix 38. In many cases, the DST served as a change partner, supporting the implementation of a transformation model. Other change partners have included the McREL Success in Sight program; America's Choice; Talent Development, LLC; Creating Great Classrooms; Solution Tree; Focused Leadership Solutions; the Southern Regional Education Board's High Schools that Work; and the NC New Schools Project (NCNSP).

The school closure model was used in only three of the 66 schools, since proximate higher-achieving schools are not available in many of the areas involved. The NC restart model resulted in 12 schools, but, as noted above, these were not a one-to-one match with the prior schools. Ten of the restart schools have a STEM curriculum focus. The transformation model was used in the remaining schools. The level of staff change required by the turnaround model has taken place so far only in the 10 STEM schools.

In 45 of the 66 schools, the primary change partner was DST itself. In these cases, a transformation model was applied, with a focus on changing the professional practices of school leaders and teachers in ways that lead to changing many aspects of the culture of the school, such as setting high expectations for all students, focusing all efforts on improving student learning, using data to inform instructional and managerial decisions, furthering collaborations among teachers, and increasing parental and community engagement in the school. This process centers on professional development and coaching, with instructional coaches for teachers,

school transformation coaches for principals, and, in the lowest-achieving districts, district transformation coaches for superintendents. A major emphasis is placed on providing high-quality, job-embedded professional development. This model generally involves changes in school leadership and multiple teacher replacements, and it can involve incentive strategies, increased learning time, and other strategies that are part of the turnaround or transformation models.

The final component of the DST approach has been monitoring progress, both to determine the effectiveness of the supports on improving student achievement and to determine whether NC needs to assume increased authority and require more extensive interventions. This monitoring takes place whether the school works directly with DST or another organization as the change partner.

The DST support process, in collaboration with district supports, school efforts, and the other change partners, has already shown significant success. Based on the 2008-09 statewide assessments, 30 of the 66 high schools involved (45%) have met the target goal of increasing student achievement performance composite to above 60% and are therefore exiting turnaround status. Of the remaining 36 high schools, 22 showed a performance composite increase of at least 5% (Individual school data are provided in Appendix 37). We therefore have evidence that the approach is a viable one for a substantial number of the lowest-achieving schools in NC. DST continues to work with the 36 high schools that have not reached the 60% criterion.

The NC Restart and NC New School Models

NC has used a restart model that differs in some of the defining characteristics from the restart model described in the *RttT* application. NC has also opened new schools to serve students in districts with low-performing schools. Since both are relevant to the NC *RttT* plans, we describe the *NC restart* and the *NC new school* models below.

Both the *NC restart* and *NC new school* models originated in NC Senate Bill 656, *The 2003 Innovative Education Initiatives Act* (Appendix 39). This bill was passed to establish cooperative efforts between secondary schools and institutions of higher education to establish new schools to improve pre-college student achievement. It also called for the establishment of "redesigned" (*i.e.*, restart) schools and the creation of a virtual high school (as described in Section D3). This Act specifically called for targeting high

school students who are at risk of dropping out, along with those who would benefit from accelerated academic instruction. The Act was framed by its legislative advocates as establishing *charter-like schools without charters* (Lt. Gov. Walter Dalton, personal comm.) and provided those schools with most of the flexibility typically associated with charter schools. Governor Perdue, then President of the NC Senate, was one of the advocates and signatories of this bill.

Also in 2003, the NCNSP, a non-profit organization, was created by the Office of the Governor and the NC Education Cabinet, with support from the Bill & Melinda Gates Foundation, to develop models for redesigned and new high schools and to support their successful implementation. The result since then has been the development of 105 small, innovative high schools in 64 (of the 115) LEAs, enrolling more than 21,000 students during the 2009-10 school year. These schools are largely located in NC's economically depressed areas and serve high percentages of minority, low-income, and "first-generation college" populations. Twenty-one of these schools are located in the 16 districts classified as lowest-achieving.

The *NC restart* model involves educators in converting part or all of a traditional high school into one or more small, academically nimble schools that can serve students better. Some function as schools-within-a-school, while in others an entire traditional high school is converted into a number of smaller, redesigned high schools. In the process, the school conditions are redesigned to permit more effective teaching and learning. The primary difference between the *NC* and *RttT restart* models is that in the NC model, each school is managed by the LEA, with the NCNSP serving as a guiding, supporting, and professional development organization, not an Education Management Organization or a Charter Management Organization. In addition, in the *NC restart* model, a school may be restarted as multiple schools, rather than a single one, or only part of the original school may be restarted as school-within-a-school. Sixty-three of the innovative high schools developed since 2003 are NC restart high schools. Ten of these are STEM-focused schools opened in 2007-08 as restart schools for lowest-achieving schools, as part of the response to Judge Manning's 2006 order that persistently low-performing high schools be redesigned with new leadership, staff, and instructional programs.

The *NC new school* model involves creating new schools that extend the schooling options available to students. The focus of

this model in NC has been in the development of Early College High Schools, which are situated on college campuses. One innovative component of these schools is that the students can take courses at the affiliated college and the curriculum is designed so that, over five years, students can earn their high school degree and an associate degree or two years of college credit, all without paying tuition, since they are enrolled in public high schools. Forty-two Early College High Schools have been created in NC since 2004, far more than in any other state and about one-third the total of all such schools in the US.

The NC restart schools and the NC new schools created through partnerships between NCNSP, LEAs, and (in the case of new schools) local colleges share a number of core strategies. Both types of schools build upon a set of design principles that include: 1) a common set of high standards to ensure that all students are prepared for college and work; 2) powerful teaching and learning, providing rigorous instruction to ensure the development of critical thinking, application, and problem-solving skills; 3) personalization, ensuring that adults in the school know students well and leverage this knowledge to improve student learning; 4) redefined professionalism, with a shared vision, a shared responsibility for the success of every student, and collaborative, creative, and learning roles for all staff; and 5) purposeful design, with the organization of time and space, and the allocation of resources, focused on creating the conditions to ensure the successful implementation of the other four principles. While the school designs are such that all students are served well and at high levels of rigor, the designs focus particularly on those students who traditionally have been underserved by mainstream public schools: children of poverty, children of color, English language learners, and first-generation college-goers.

Highly qualified school leaders and faculty were recruited for these innovative schools, and hiring packages and bonus incentives were established in some districts for increased student performance. All staff received direct support through professional development and coaching in effective use of research-based professional practices and change strategies. Some of these schools have a thematic focus in STEM: areas that are vital to the future of NC's economy, including science, technology, engineering, and mathematics. Some have a strong technology component, with every student and teacher utilizing a laptop computer.

The strategies for the *NC restart* and *new school* models that correspond with strategies of the *RttT* turnaround models include the following:

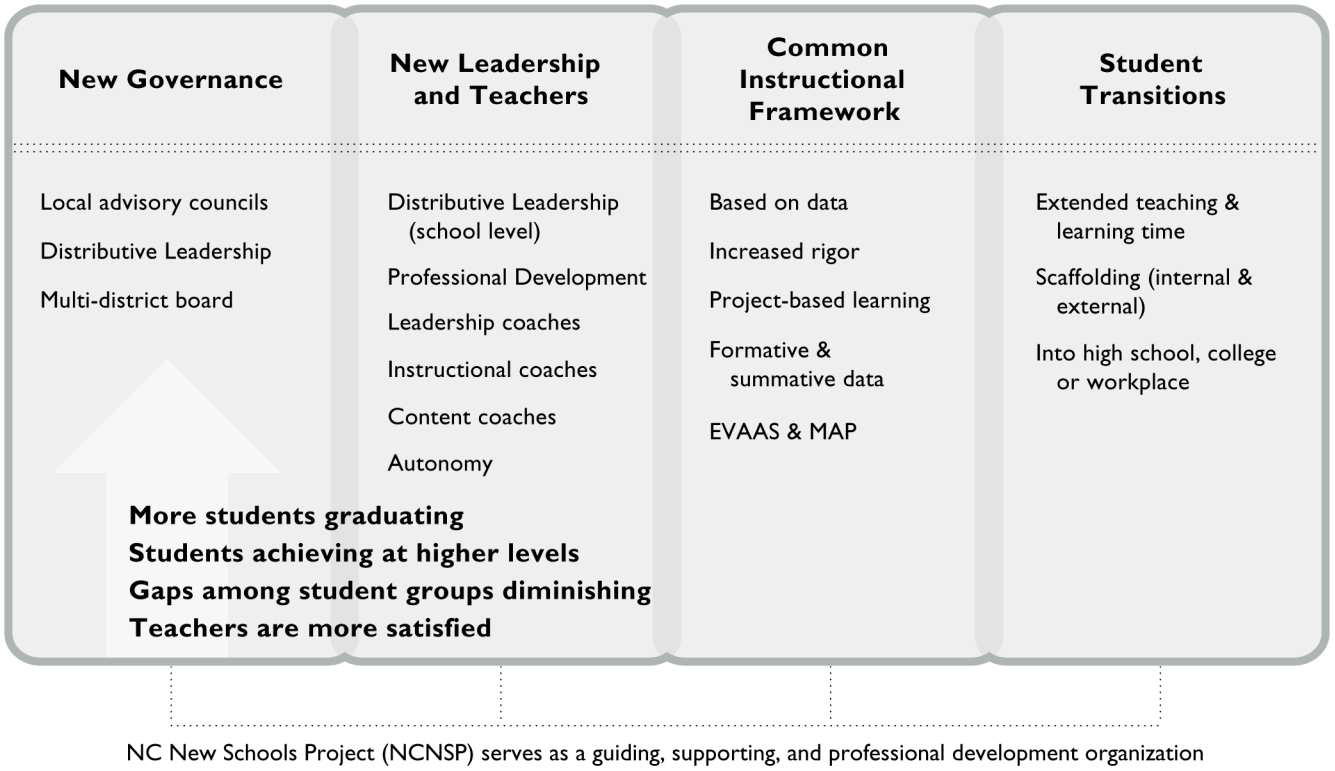

Figure 8: NC Restart and New Schools Model Strategies and the *RttT* Turnaround Model

See Appendix 40 for a fuller description of the tools from NCNSP's Integrated System of School Support Services (IS4).

These innovative schools, the first of which was opened in 2005, already are delivering promising results:

- *More students are graduating*. Of the 18 innovative high schools in which a full, four-year cohort graduated in 2009, seven had graduation rates above 95% and 12 had graduation rates above 80%, compared to NC's overall rate of 72%;
- *Students are achieving at higher levels*. Measured by NC's accountability system, two-thirds of the innovative high schools in

2008-09 outperformed their comparison schools, and one-third had overall passing rates greater than 80% on NC end-of-course exams, compared to only about one-fifth of all high schools statewide;

- *Gaps among student groups are diminishing*. An experimental study of Early College High Schools funded by the Institute for Education Sciences found that, by the end of 9th grade, 75.5% of underrepresented minority students and 74.8% of white students enrolled in Early Colleges had successfully completed Algebra I, much higher than the 54.9% of underrepresented minority students and 61.2% of white students in the control group (Julie Edmonds, SERVE, personal comm.); and
- *Teachers are more satisfied.* In 2007-08, 49% of teachers in NC's innovative high schools strongly agreed that their schools are "good places to teach and learn," compared to 34% of teachers in the traditional high schools to which they were compared.

While the *NC restart* and the *NC new school* models described have been central to the NC initiatives during the past five years, NC also supports the development of charter schools, as described in Section F2.

The NC *RttT* Initiative to Turn Around the Lowest-Achieving Schools (*TALAS*)

With *RttT* funding, the *NC TALAS Initiative* will move faster and farther in turning around our lowest-achieving schools and providing additional educational options for students in the regions where these schools are located. In addition to the current work of DST, three primary goals of the *TALAS* are to:

1. *Dramatically improve achievement in the persistently lowest-achieving schools;*
2. *Raise district-wide performance in those districts with a high concentration of persistently lowest-achieving schools*; *and*
3. *Provide new opportunities for students in the lowest-achieving schools and districts to attend schools that will better support their achievement and lead them to college and career readiness.*

Meeting these goals will result in measurable outcomes in the schools involved: improved student achievement; increased graduation rates; reduction of achievement gaps; evidence of more challenging courses of study; and evidence of increased readiness for post-secondary opportunities. Additional outcomes will be an increased supply and retention of effective leaders and teachers.

DST will provide management and oversight to all of *TALAS*. The districts and schools involved will continue to have options to choose change models and partners. The NC *RttT* initiative will include the following steps:

Increase DST resources to ensure that all schools and all districts meeting the lowest-achieving criterion receive appropriate support services designed to increase student performance to significantly above the lowest-achieving criterion. We will target the 132 schools meeting the persistently lowest-achieving criterion described above. Our data show that schools with below-50% proficiency composites (*i.e.*, schools in which more than 50% of the students' test scores on state assessments are below proficient) are synonymous with the lowest 5% of schools in NC and with Title I schools in improvement, corrective action, or restructuring. Our goal is that, by SY 2013-04, all of these schools will be well above the 50% proficiency composite measure, enabling NC to redefine lowest-achieving as those schools with a composite measure below 70% and to then apply DST resources to schools in the 50% to 70% range. Tied to this goal is transforming the culture of low expectations and low performance by building local capacity, so that change is sustained and districts and schools continue to move toward 100% proficiency.

Require district agreements to address the improvement of the persistently lowest-achieving schools. Districts that contain lowest-achieving schools will be required to agree to the following for schools that do not show significant increases in student achievement within two years:

- Districts agree that all persistently lowest-achieving schools will engage in the DST comprehensive needs assessment, plan development, partner selection, and monitoring processes;
- Districts commit to utilizing one of four models in each of their persistently lowest-achieving schools: turnaround, restart, closure, or transformation. An LEA with more than nine persistently low-achieving schools may not select the transformation model for more than 50% of its schools;
- Districts agree to replace school leadership, involving DST in the process, if a principal has led a lowest-achieving school for two years without adequate progress in improving student achievement;
- If a school has not shown positive results after three years of participation in an agreed-upon change strategy, districts relinquish

to the State Board of Education (SBE) oversight and control of curriculum and instruction, personnel, and budget; *and*

- Districts recognize that the SBE will require more aggressive intervention in lowest-achieving districts and schools if the district administration does not provide sufficient leadership for and cooperation with the turnaround process.

Increase the strategies and options available in school and district turnaround plans. To begin, *TALAS* will enhance and expand the current comprehensive needs assessment process by supporting schools and districts as they work to better understand the results of their assessments and develop strategic plans for change and for improving instructional practice. This effort is already underway, with Cambridge Education providing consultation and training that will further enhance the DST assessment of struggling schools' processes, procedures, and instructional practices by including a rubric designed to evaluate impact on student learning.

Then, in an effort to customize supports for participating LEAs, we will make additional strategies and options available as they are identified during the comprehensive needs assessment process. In addition to those described for the coaching model above, the choices will include:

- Further revisions in school governance and management structures;
- Strategic staffing initiatives, including incentive and learning team models, as described in Section D3;
- Targeted teacher and principal candidate recruitment, preparation, and induction, as described in Section D3;
- Engagement of Teach for America/Teach for NC Teachers, as described in Section D3;
- Increased use of NC Public Virtual School courses, as described in Section D3;
- Extended learning time for students;
- Effective implementations of instructional technology such as those demonstrated in the NC Learning Technology Initiative;
- Coaching for parent groups, community groups, and school boards; and
- Development of higher education, business and community partnerships.

Develop a set of STEM "Cluster" Networks. Building on the foundation of redesigned schools and Early College initiatives and

using the *new school* model described above, the NC *RttT* plan includes developing a set of networks involving innovative and STEM-focused schools. *RttT* support will further the development of a set of anchor schools at the center of each cluster network, whose themes will reflect their importance to NC economic and workforce development requirements: 1) engineering and energy; 2) aerospace; 3) biotechnology and agriscience; and 4) health and life sciences. These unique school settings will provide another option for students, especially those in urban and rural poor communities that are most often served by the lowest-achieving schools. This approach will serve to attract students traditionally underrepresented in STEM fields and to prepare students to face the "Grand Challenges" of the 21st century, as outlined by a committee of the National Academy of Engineering (see Appendix 41 for more information). Preparing students to meet these Grand Challenges requires a project-based approach to teaching and learning and will provide rich opportunities for cross-disciplinary connections and service learning built upon curriculum in science, technology, engineering, and mathematics. Tackling such Grand Challenges requires consideration of: the economic, political, and social barriers to solutions; the impact of decisions; and issues of ethics, sustainability, and equity.

Beginning with the STEM-themed high schools already operating in NC, we plan to: 1) develop STEM-*anchor schools*, one for each of the four selected themes, designed to provide leadership in curriculum innovation (for example, Project Lead the Way, Engineering for the Future, and other engineering programs), professional development, technology use, and models of collaboration with business and higher education partners, and, overall, to serve as test-beds for innovation; and 2) link these anchor schools to a growing set of "cluster" networks of schools that serve high-need communities throughout NC. While *RttT* funding will be used to advance the development of the initial four STEM-anchor schools and their associated "cluster" networks of affinity-like schools, NC, local, and other funding will support further development of other schools and networks across the larger STEM network.

Connect TALAS and STEM Schools with Community & Business Collaborators. NCDPI and the STEM schools initiative connect with two other major new NC initiatives. The first is the NC STEM Community Collaborative (NC STEM), established in 2008 by NC leaders, MCNC, and the Bill & Melinda Gates Foundation. This collaborative recognizes the essential role of cross-

sector community ownership in redefining education to more closely align with the new economy to ensure sustainable innovation. Through this collaborative, several community design teams, formed by local leaders of business, all levels of education, economic development, and community anchor institutions and embedded staff from the NCDPI and non-local leadership institutions, are already planning to establish and support STEM-themed high schools as well as other evidence-based innovative STEM programs aligned with *RttT* assurances (*e.g.*, programs implementing innovative human capital models for teacher recruitment, preparation, retention, and compensation across a district, an experience-based learning "hub" on a corporate campus for integrated delivery of professional development, lower-income/minority internship programs, learning labs, and externships tied to STEM careers). NC STEM builds public demand for the need for STEM skills for all children, connects communities' efforts with a network of NC and national STEM innovators and experts (including a multi-state STEM consortium fostered by the Bill & Melinda Gates Foundation and Battelle Memorial Institute), and assists with the leverage of public and private funding towards scaling sustainable innovation.

Second, in 2009, the NC General Assembly established the JOBS Commission (Joining Our Businesses and Schools), chaired by Lt. Governor Walter Dalton, for the creation of new approaches to education in each of NC's seven economic development regions that will align with promising growth sectors of the economy, especially those driven by the pre-eminence of the sciences and technology. The JOBS Commission serves as an advisor to the NC STEM Community Collaborative, and vice versa, ensuring the unique assets, needs, and economic engines in each of the seven economic development regions are connected to local education pipelines. Each economic development region has or will have at least one NC STEM Community. This model allows the learning, practices, and innovations with the most efficacy and impact to propagate quickly through a statewide collaborative network that includes the anchor STEM schools, network of new schools, LEAs and other levels of education, NC and regional institutions, informal learning organizations, business and industry partners, and policy makers. *RttT* funding will support the continued collaboration across each of the initiatives, enhancing a statewide approach to all of these efforts.

Figure 9 below illustrates working plans for the STEM anchor schools and the networks that support them.

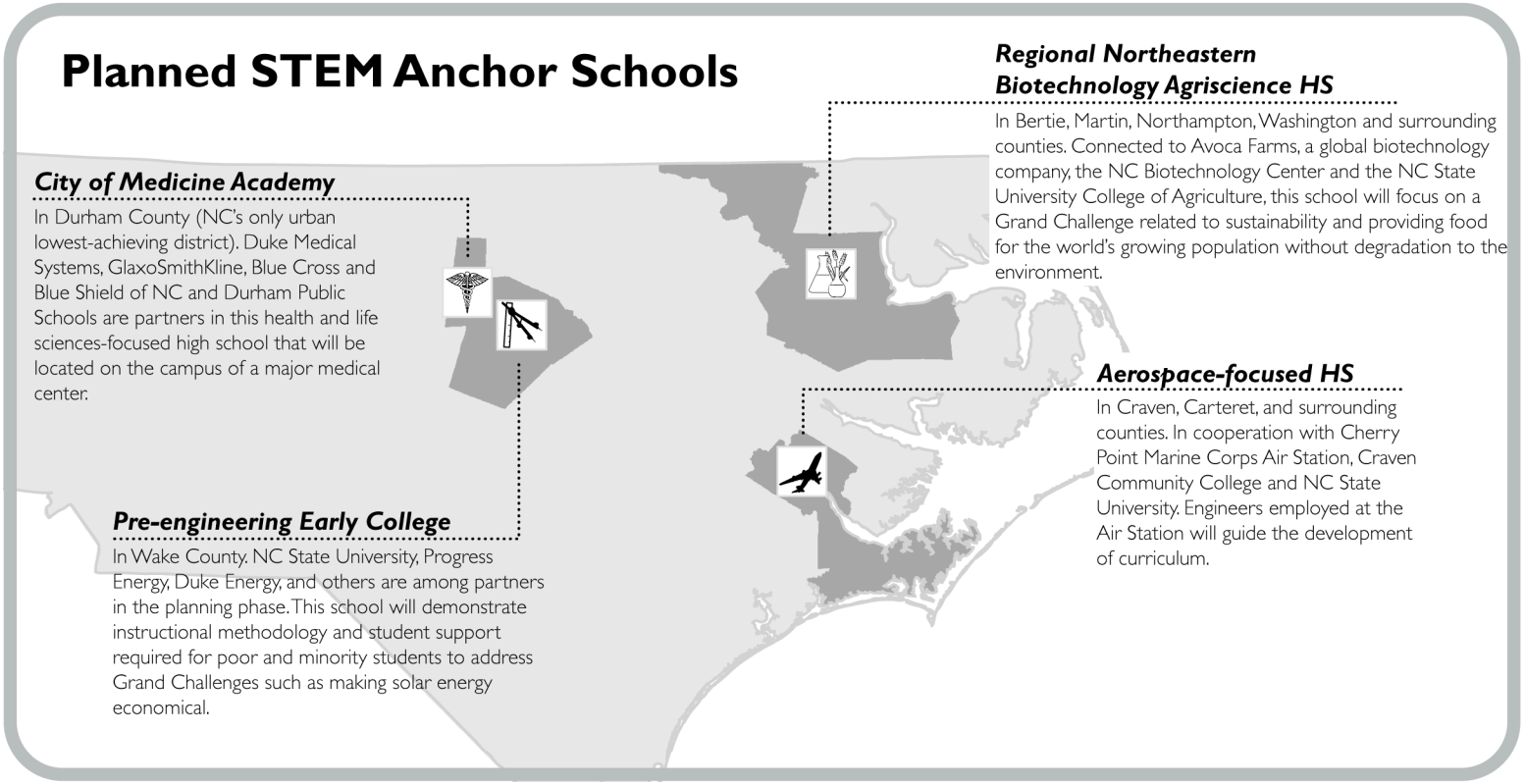

Figure 9: Working Plans for STEM Anchor Schools

As the hub of each cluster, the anchor school will accelerate the development of a fully articulated and coherent curriculum, instruction, assessment, and professional development model consistent with the NC vision for STEM education. Anchor schools also will provide support for peer schools within each cluster, including peer school reviews, in which teams from schools visit a school to observe classes, collect data, and provide feedback on teacher-developed questions about student learning and questions about school-wide practices to support continuous improvement. These unique learning environments will represent opportunities for 21st-century skills to engage parents and the private sector in further development of innovative and charter-like school settings.

Building anchor schools within networks of schools that are focused on STEM education will enable NC to enhance student choice and ensure successful innovation in high school education. With a goal of ultimately affecting all classrooms, lessons learned from this approach will integrate with the state-level turnaround of the lowest-achieving schools and districts while also aligning school innovation with economic and workforce development. The goal is to establish a network of well articulated, effective STEM schools with community supports inside and outside the education sector that are comprehensive in scope and linked to disciplines closely aligned with the workforce demands of the emerging economy.

Evidence

Approach Used	# of Schools Since SY 2004-05	Results and Lessons Learned
School Assistance	**2004-06** 5 schools*	Schools identified as low-achieving under NC statute* Two seven-person teams for each school; extremely expensive; can serve few schools Erratic progress; school performance may go up when assistance teams are present, down the following year Model was actually in place for a 10-year period (1997-2007) Lessons learned: • assistance necessary over multiple years due to the quick drop when services were removed • need to develop a model to serve more schools within an existing budget (serve to scale)
School Coaching Model	**2006-09** 31 high schools **2007-09** Additional 35 high schools 37 middle schools	Schools identified by judicial and executive branch for performance under 60% proficient (some schools' proficiency was as low as 20%) Efficient and cost effective; same budget as 2004-06 By third year, almost half of the high schools exceed target of 60% proficient Majority of schools improve; some dramatically (performance composites above 70%) Lesson learned: • in rural districts with one or two high schools, intervention needs to be systemic to the district • in urban districts there was need for central leadership to focus on issues and direct resources Model outlined as part of ***TALAS***
District & School Coaching Model	**2008-09** 5 districts	Voluntary partnership between district and NC Change coaches provided by NC First year results show considerable improvement in majority of district schools Model outlined as part of ***TALAS***
Transformation model under court consent order	**2008-09** 1 district	Partnership through consent order Monitored by the court system Change coaches provided by NC State recommends to the LEA decisions related to finance, personnel, and C&I

Performance Measures	Actual Data: Baseline (Current school year or most recent)	End of SY 2010-2011	End of SY 2011-2012	End of SY 2012-2013	End of SY 2013-2014
Turnaround Model	3 middle schools	TBD	TBD	TBD	TBD
Restart Model (include NC *redesigned school* variation)	11 high schools (originally 12, but one closed)	TBD	TBD	TBD	TBD
School Closure	3 high schools	TBD	TBD	TBD	TBD
Transformation Model	59 high schools 34 middle schools	TBD	TBD	TBD	TBD
New School Model (added by NC based upon prior data and results) Anchor Schools Established Affinity Cluster Networks Established	 0 0	 2 0	 4 2	 4 3	 4 4

While our current model is most similar to the *Transformation Model* as defined in the *RttT* guidelines, in reality we operated a blended model. We created 11 new schools, which most closely aligns to the *Restart Model*. Three schools closed in the current school year, with two reopening as STEM schools, and one reopening as five redesigned *NCNSP* schools. In addition, eight more STEM schools were carved from existing high schools. We have used elements of the *Turnaround Model* in selected urban settings where new principals and new leadership teams have gone into an existing school. We are not providing year-by-year targets because we are initiating everything in the first year. We know this is a three-year change cycle, and we want proven results (based on the *Comprehensive Needs Assessment*) and sustainability before the funding is withdrawn.

(F) General ***(55 total points)***

State Reform Conditions Criteria

(F1) Making education funding a priority *(10 points)*

The extent to which—

(i) The percentage of the total revenues available to the State (as defined in this notice) that were used to support elementary, secondary, and public higher education for FY 2009 was greater than or equal to the percentage of the total revenues available to the State (as defined in this notice) that were used to support elementary, secondary, and public higher education for FY 2008; and

(ii) The State's policies lead to equitable funding (a) between high-need LEAs (as defined in this notice) and other LEAs, and (b) within LEAs, between high-poverty schools (as defined in this notice) and other schools.

In the text box below, the State shall describe its current status in meeting the criterion. The narrative or attachments shall also include, at a minimum, the evidence listed below, and how each piece of evidence demonstrates the State's success in meeting the criterion. The narrative and attachments may also include any additional information the State believes will be helpful to peer reviewers. For attachments included in the Appendix, note in the narrative the location where the attachments can be found.

Evidence for (F1i):

- Financial data to show whether and to what extent expenditures, as a percentage of the total revenues available to the State (as defined in this notice), increased, decreased, or remained the same.

Evidence for (F1ii):

- Any supporting evidence the State believes will be helpful to peer reviewers.

Recommended maximum response length: Three pages

F.1. Making education funding a priority

F.1.i. The percentage of total revenues available used to support elementary, secondary, and public higher education for FY 2009 was greater than or equal to the percentage used for FY 2008.

Table 15 demonstrates that NC's support for education has increased in FY 2008-09 when compared to FY 2007-08. The chart presents education funding in two ways, as a proportion of actual State revenue and as a proportion of total funding available for State expenditures. Actual revenue collected in FY 2008-09 was $17.6 billion; however, money was transferred from reserves and other accounts to fund NC operations at $19.1 billion. By either measure, NC increased the State contribution to education.

Table 15: NC's Support for Education

	2007-2008 Actual Exp	2008-2009 Actual Exp
K-12 - NC Public School Fund	$8,197,121,797	$2,331,866,255
NCCCS - 1600 State Aid	$8,347,474,500	$2,123,167,863
UNC - Public Higher Ed	$924,939,972	$3,256,806,228
Higher Ed Total	$858,249,725	$2,981,417,588
Education Total	$11,453,928,025	$11,328,892,088
Actual NC Revenue	$19,824,083,747	$17,626,818,640
Education as % of NC Revenue	*57.8%*	*64.3%*
NC Revenue: includes cash transfers/measures to balance budget in FY09		$19,145,677,966
Education as % of NC Revenue		*59.2%*

Note: This table shows the entire NC State Public School Fund (SPSF) state support for K-12 rather than the K-12 primary funding formulae (a subset of SPSF) reported in the State Fiscal Stabilization Fund application.

F.1.ii. The State's policies lead to equitable funding (a) between high-need LEAs and other LEAs, and (b) within LEAs, between high-poverty schools and other schools.

Sixty-nine percent of all current expense funding for NC public schools comes directly from the state. NC's funding is distributed in three ways and uses 25 different formulas to assure equitable funding among local education agencies (LEAs).

1. Basic Support For Classroom Instruction

Guaranteed Position Allotments (59% of all NC funding). NC distributes position allotments for teachers, instructional support, assistant principals, and principals directly to LEAs. For each allocated position, NC guarantees the salary and benefits based on the State Salary Schedule. Some LEAs supplement teacher salaries with local funds, but even the largest of these local supplements (in one LEA) amount to no more than 15% of the state salary. Because NC reimburses the LEAs for such a high percentage of the salary and benefits of allotted positions, LEAs can hire certified educators whose years of experience and education place them higher on the State Salary schedule without being limited by a specific dollar amount. Consequently, each LEA has a different average salary based on experience and the education level of the certified personnel it hires.

- Teacher positions are distributed to LEAs based on the number of students by specific grades: grades K-3 (1:18), grades 4-6 (1:22), grades 7-8 (1:21), grade 9 (1:24.5), grades 10-12 (1:26.64);
- All schools with 100 students or seven NC-paid teachers receive a principal position. Assistant principal positions are distributed based on the total number of students; and
- For every 200 students, an LEA receives one instructional support position (used for guidance counselors, media specialist, social workers, *etc*.)

Dollar Allotments (12% of all NC Funding). Dollar allotments provide funding for teacher assistants, textbooks, instructional supplies, school clerical and custodian support, and central office and other resources needed to offer instructional services to NC public school students.

2. Categorical (27% of NC funding)

NC's basic support for classroom instruction funding model is designed to meet the education delivery needs of an average student. Categorical allotments target funding to specific groups of students and school districts to supplement services to students who require additional services. Examples of categorical funding include funding for students at risk of academic failure, funding for students with limited English, funding for children with special needs, and academically/intellectually gifted students. To reduce disparities resulting from local education funding, NC provides low-wealth supplemental funding to LEAs identified as not being able to generate local funding to support their schools at the average level for all school districts in NC. NC also addresses the inability of very small LEAs to realize the full benefits of economies of scale available to larger LEAs by providing small-county supplemental funding for LEAs with less than 4,000 students. Recognizing the special issues that concentrated populations of disadvantaged students present for large urban and rural LEAs, NC has a Disadvantaged Student Supplemental Funding (DSSF) allotment to provide additional funding to these districts.

3. Unlimited Funding (2% of NC funding)

To assure that all LEAs have the ability to pay the actual cost of some needs, LEAs are allowed to expend what is required to cover their worker compensation costs, unemployment claims, longevity payments (a supplement for an employee's years of service), and short-term disability costs.

The NC funding structure ensures that NC funding is equitably distributed among the 115 NC LEAs and specifically addresses *high-need* LEAs. NC has 69 *high-need* LEAs, 60% of all LEAs. NC's targeted Categorical Allotments (DSSF and low wealth specifically) direct significant additional NC resources to these LEAs.

NC distributes funding to local boards of education. These boards then determine how to distribute the NC resources among schools to meet the specific needs of the LEA's student population. This flexibility to distribute resources per the LEA's needs allows the LEAs to be innovative and to recognize the schools in their district with specific funding needs. Within this flexibility, NC sets the following boundaries to ensure equitable funding between the schools:

- NC has maximum individual class size laws. This ensures that the LEAs allocate their classroom teacher allotments equitably to all schools and classes;
- All certified personnel, including teachers, instructional support, assistant principals, and principals, are required to be paid no less than the salary that the State Salary Schedule specifies for educators with their experience and education;
- As mentioned above, the LEAs are provided 59% of their funds in positions, not dollars. As a result, schools are provided the same opportunity to hire the most experienced and educated certified personnel without being limited to a specific budget amount; and
- While LEAs have some discretion to allocate NC resources within the LEA, the LEAs must report school-based expenditures to NC. Because NC's ABCs accountability program monitors performance by school, NC can use the information regarding school expenditures and student performance to determine whether local funding decisions are creating inequitable conditions between the schools within the LEA.

(F2) Ensuring successful conditions for high-performing charter schools and other innovative schools *(40 points)*

The extent to which—

(i) The State has a charter school law that does not prohibit or effectively inhibit increasing the number of high-performing charter schools (as defined in this notice) in the State, measured (as set forth in Appendix B) by the percentage of total schools in the State that are allowed to be charter schools or otherwise restrict student enrollment in charter schools;

(ii) The State has laws, statutes, regulations, or guidelines regarding how charter school authorizers approve, monitor, hold accountable, reauthorize, and close charter schools; in particular, whether authorizers require that student achievement (as defined in this notice) be one significant factor, among others, in authorization or renewal; encourage charter schools that serve student populations that are similar to local district student populations, especially relative to high-need students (as defined in this notice); and have closed or not renewed ineffective charter schools;

(iii) The State's charter schools receive (as set forth in Appendix B) equitable funding compared to traditional public schools, and a commensurate share of local, State, and Federal revenues;

(iv) The State provides charter schools with funding for facilities (for leasing facilities, purchasing facilities, or making tenant improvements), assistance with facilities acquisition, access to public facilities, the ability to share in bonds and mill levies, or other supports; and the extent to which the State does not impose any facility-related requirements on charter schools that are stricter than those applied to traditional public schools; and

(v) The State enables LEAs to operate innovative, autonomous public schools (as defined in this notice) other than charter schools.

In the text box below, the State shall describe its current status in meeting the criterion. The narrative or attachments shall also include, at a minimum, the evidence listed below, and how each piece of evidence demonstrates the State's success in meeting the criterion. The narrative and attachments may also include any additional information the State believes will be helpful to peer reviewers. For attachments included in the Appendix, note in the narrative the location where the attachments can be found.

Evidence for (F2i):

- A description of the State's applicable laws, statutes, regulations, or other relevant legal documents.
- The number of charter schools allowed under State law and the percentage this represents of the total number of schools in the State.

- The number and types of charter schools currently operating in the State.

Evidence for (F2ii):

- A description of the State's approach to charter school accountability and authorization, and a description of the State's applicable laws, statutes, regulations, or other relevant legal documents.
- For each of the last five years:
    - The number of charter school applications made in the State.
    - The number of charter school applications approved.
    - The number of charter school applications denied and reasons for the denials (academic, financial, low enrollment, other).
    - The number of charter schools closed (including charter schools that were not reauthorized to operate).

Evidence for (F2iii):

- A description of the State's applicable statutes, regulations, or other relevant legal documents.
- A description of the State's approach to charter school funding, the amount of funding passed through to charter schools per student, and how those amounts compare with traditional public school per-student funding allocations.

Evidence for (F2iv):

- A description of the State's applicable statutes, regulations, or other relevant legal documents.
- A description of the statewide facilities supports provided to charter schools, if any.

Evidence for (F2v):

- A description of how the State enables LEAs to operate innovative, autonomous public schools (as defined in this notice) other than charter schools.

Recommended maximum response length: Six pages

F.2. Ensuring successful conditions for high-performing charter schools and other innovative schools

F.2.i. The extent to which the State has a charter school law that does not prohibit or effectively inhibit increasing the number of high-performing charter schools

During the FY 2009-10 school year, 96 charter schools are operating under NC's Charter School law (115C-238.29A). NC law does limit the total number of charter schools to 100 and does limit the number of charter schools in any single LEA to five (§115C-238.29D). This limit is 3.8% of the total number of schools. However, as described in Section E2, as a result of the *2003 Innovative Education Initiatives Act* (provided in Appendix 39), NC also has additional schools that are intended to function as "charter-like schools without charters," in that they have the type of autonomy and emphasis on innovation found in the best of charter schools. As a result, there are currently 42 Early College High Schools and 63 Redesigned High Schools in NC, and there is no cap on the number of these types of innovative schools. Including these schools, 8.1% of NC's schools are either charter or charter-like innovative schools.

F.2.ii. The extent to which the State has laws, statutes, regulations, or guidelines regarding how charter school authorizers approve, monitor, hold accountable, reauthorize, and close charter schools

Under NC law, the State Board of Education (SBE) must approve all applications for charters. All applications for charters are reviewed and evaluated by an independent panel of experts to determine if the applicant meets the required legislative criteria. All qualified applicants are presented to a committee of the SBE for review, interviews, and recommendations. The SBE has final authority to grant all charters. When awarding charters, the SBE considers whether the proposed charter school would increase learning opportunities for all students, with a special emphasis on expanded learning experiences for students who are identified as at risk of academic failure, and whether the charter school would provide expanded choices beyond the types of educational opportunities that are available within the public school system. SBE regulations favor award of charters to applicants who have a sound marketing plan that promotes a diverse learning environment. Once granted, the charter gives the non-profit corporation that

holds it the right to receive NC and local funding to operate a school free from many NC laws that could inhibit innovation or the independence of the school.

In addition to standardizing the application process, SBE policy establishes a standard charter renewal process, specifies the grounds and procedures for revoking a charter, and describes the mechanism for funding charter schools. The SBE also has several policies in place to ensure that charter schools are operating in a financially stable manner and that students are receiving appropriate instruction.

To assist with the implementation of its policies, the SBE has created an Office of Charter Schools (OCS) within NCDPI that is dedicated to supporting and monitoring all charter schools. The OCS assigns personnel to each charter school to serve as a point of contact for the charter school and a resource for services, data, and information. The OCS staff visit all assigned charter schools annually to perform monitoring and support functions.

The SBE requires all public schools, including charter schools, to be accountable for public funds and to improve student performance. Although the SBE could authorize an alternative accountability model for charter schools, all current charter schools use the same accountability model used in other public schools. With respect to student performance, SBE policy requires that any charter be revoked if, for two of three consecutive school years, the charter school does not meet or exceed expected growth and has a Performance Composite below 60% (based on NC's ABCs accountability system).

A charter school can decide to relinquish its charter, the SBE can decide not to renew a charter, or the SBE can revoke a charter. Since 1996, 44 charter schools have been closed in NC. We have included the following related to this item:

- **Charter School Application Statistics.** Appendix 42 outlines the number of applicants by year since 1997-98, the number of charters awarded, and the number of charters relinquished, renewed, and revoked;
- **Closed Schools 1997-2009.** Appendix 43 identifies all the charter schools that have relinquished their charter or whose charter was revoked by the SBE; and
- **Curriculum Information For Charter Schools.** Appendix 44 is a list of all charter schools operating in NC, their locations,

their grade structures, and brief descriptions of their core missions.

F.2.iii. The extent to which the State's charter schools receive equitable funding compared to traditional public schools, and a commensurate share of local, State, and Federal revenues

State Funding of Charter Schools

In accordance with NC General Statute 115C.238.29H, NC provides charter schools with the same funds for each student that it would provide for that student in an LEA. NC also requires LEAs to provide a charter school with a proportionate share of its current operations funds based upon the number of students from the LEA who attend the charter school.

NC allocates funding to LEAs in various funding categories. NC totals these allocations for each LEA and divides the total allocations by the LEA's Average Daily Membership (ADM) to calculate the NC allocation for each LEA in dollars per child. To that figure, NC adds an amount equal to the per student proportion of any unallotted dollars to account for NC funding from unallotted NC funds used by LEAs (*e.g.*, unemployment compensation, worker's compensation; annual leave). NC then provides a charter school with the total allotted and unalloted per-student funding for each student enrolled in the charter school from a particular LEA. The result is that, for each student it enrolls, a charter school receives the same amount of NC funding that the student's home LEA would have received if the student had enrolled in a school operated by the LEA. The average statewide NC dollars per student for charter school funding for FY 2009-10 is $3,545.42.

In accordance with legislation, some NC funding categories are not included in the dollar per ADM calculation. In those cases, the charter school is included in the NC formula on the same terms as an LEA and receives the funds generated by the formula. Funds for Children with Disabilities and Limited English Proficiency are examples of such funding.

Local Funding of Charter Schools

LEAs are legally required to distribute a proportionate share of local current expense monies provided by their local board of county commissioners to charter schools in their district in accord with Public School Law of North Carolina 115C-238.29H(b): "If a student attends a charter school, the local school administrative unit in which the child resides shall transfer to the charter school

an amount equal to the per pupil local current expense appropriation to the local school administrative unit for the fiscal year."

The effect of the NC funding system for charter schools is to assure that charter schools receive the same per student operating funding that NC and boards of county commissioners provide to LEAs.

Federal Funding of Charter Schools

Charter schools are included in federal funding formulas just like an LEA and receive those funds based on federal eligibility requirements.

F.2.iv. The State provides charter schools with funding for facilities, assistance with facilities acquisition, access to public facilities, the ability to share in bonds and mill levies, or other supports

According to NC General Statute 115C-238.29H, NC does not impose stricter or additional facility-related requirements on charter schools. NC statute requires charter schools to operate under the same facility requirements as required for any public school. A charter school can use any NC or local funds (as described in Section F2iii) to lease facilities or make tenant improvements. NC does not own local facilities; but local education agencies are required to work with charter schools when facilities are available and not in use by the local district. NC does not directly appropriate a specific funding stream to charter schools for facilities and county commissioners are prohibited from providing charter schools with local funds specifically for capital outlay projects.

F.2.v. The State enables LEAs to operate innovative, autonomous public schools other than charter schools

As described in Section E2 and mentioned in Section F2i, NC has a vigorous program for encouraging innovative and autonomous public schools other than charter schools. Over 100 Early College High Schools and Redesigned High Schools are operating in NC, and there is no cap on increasing these numbers. In fact, within the authorizing legislation (described in Section E2 and provided in Appendix 39), NC is requesting support within this proposal to extend a network of innovative STEM-focused high schools.

These innovative high schools are required to either target students who are at risk of dropping out of high school or offer

accelerated learning programs. Cooperative, innovative high school programs may include the creation of a school within a school, a technical high school, or a high school or technical center located on the campus of a college or university. Once approved, the school can obtain waivers from the NCDPI, which frees it from restrictions on the use of NC funding and from other specific NC laws and polices.

(F3) Demonstrating other significant reform conditions *(5 points)*

The extent to which the State, in addition to information provided under other State Reform Conditions Criteria, has created, through law, regulation, or policy, other conditions favorable to education reform or innovation that have increased student achievement or graduation rates, narrowed achievement gaps, or resulted in other important outcomes.

In the text box below, the State shall describe its current status in meeting the criterion. The narrative or attachments shall also include, at a minimum, the evidence listed below, and how each piece of evidence demonstrates the State's success in meeting the criterion. The narrative and attachments may also include any additional information the State believes will be helpful to peer reviewers. For attachments included in the Appendix, note in the narrative the location where the attachments can be found.

Evidence for (F3):

- A description of the State's other applicable key education laws, statutes, regulations, or relevant legal documents.

Recommended maximum response length: Two pages

F.3. Demonstrating Other Significant Reform Conditions

This proposal reflects many ways in which NC supports education reforms and innovations that increase student achievement and graduation rates and narrow achievement gaps and ensures that its education system prepares all students to meet the challenges and opportunities of the 21st century. NC has put in place many other initiatives not detailed elsewhere in this document that further reflect its commitment. Some major ones designed to improve early learning outcomes, support at-risk students, and recruit and retain high-quality teachers and principals are described below.

Improving Early Learning Outcomes

For over a decade and a half, NC has been a national leader in efforts to improve educational outcomes for the youngest high-need students through two programs focused on improving school readiness and the transition between preschool and kindergarten.

Smart Start (1993). Smart Start is NC's nationally recognized and award-winning early childhood initiative designed to ensure that young children enter school healthy and ready to succeed. Smart Start is a public-private initiative that provides early education

funding to all of NC's 100 counties. Annual state funding for Smart Start stands at around $200 million, and the program has raised more than $257 million in donations since it began. These funds are used to improve the quality of child care, make child care more affordable and accessible, provide access to health services, and offer family support. Smart Start is considered a model for comprehensive early childhood education initiatives, and, in 2001, a National Technical Assistance Center was established to assist other states with the development of their own early education initiatives.

More at Four (2001). The More at Four Program is NC's statewide initiative for at-risk 4-year-olds, designed to help children be more successful when they enter school by providing a high-quality, pre-K educational program. More at Four provides funding for classroom-based educational programs at a variety of sites, including public schools, private for-profit and non-profit child care centers, and Head Start programs. Children are eligible for More at Four based on poverty status and other risk factors, with priority for service given to children who are otherwise not served by a preschool program.

Providing Comprehensive Services to High-Need Students

NC School Improvement Project (NCSIP II; 2000). Funded through the USED's Special Education Program, NCSIP II seeks to improve the quality and effectiveness of programs and instruction for students with disabilities. A main focus of NCSIP II is the recruitment, training, and retention of highly qualified teachers who are able to address the needs of students with disabilities in order to increase academic achievement and decrease dropout rates. Over the first five years of the project, the proportion of students with disabilities performing at or above grade level on reading tests has increased significantly, and the graduation rate for students with disabilities has increased by 20%.

Joint Legislative Commission on Dropout Prevention and High School Graduation (2007). The NC General Assembly funds grants to focus attention and resources on innovative programs and initiatives that promote keeping at-risk students in school, with $15 million appropriated for these programs in FY 2008. The Commission provides oversight and evaluates initiatives to identify those with the potential to be developed into effective, sustainable, and coordinated dropout prevention and re-entry programs that will increase the number of students who graduate prepared to further their postsecondary education or enter the workforce. The

Session Law regarding Joint Legislative Commission on Dropout Prevention and High School Graduation is included in Appendix 45.

Personal Education Plan (2001). Under NC law, any child who does not meet grade-level proficiency is eligible for a Personal Education Plan. A Personal Education Plan aids parents, teachers, and administrators in planning the special interventions a student may need. These interventions can include, but are not limited to, smaller classes, tutorial sessions, extended school days, and alternative learning models. The statute regarding Personal Education Plans (§ 115C-105.41) is included in Appendix 46.

Recruiting, Compensating, Promoting, and Retaining High-Quality Teachers and Principals

Incentives for National Board Certified Teachers (NBCTs; 1994). NC has the highest number of NBCTs in the nation, and they make up by far the single-largest group of expert teachers in the state. NC supports these teachers by paying the assessment fee, providing paid release time to candidates, granting renewal credit for those teachers who complete the assessment, and paying NBCTs a salary differential of 12% of their state salary. The NC Association of Educators (NCAE) has been and continues to be a major support provider for NBCT candidates. The State Board of Education Policy concerning National Board of Professional Teaching Standards in included in Appendix 47.

Fast-Track Licensure for Science and Math Teachers (2007). UNC System President Bowles has implemented a national model for recruiting and producing K-12 teachers, as highlighted in the National Academy of Sciences report, *Rising Above the Gathering Storm* (2007). In place at four university campuses across NC, these fast-track licensure programs help undergraduate STEM majors earn teacher certification without the need for additional years of study. Program completers who go on to teach math or science in NC receive annual stipends of $5,000 for up to five years.

Priority 2: Competitive Preference Priority -- Emphasis on Science, Technology, Engineering, and Mathematics (STEM). *(15 points, all or nothing)*

To meet this priority, the State's application must have a high-quality plan to address the need to (i) offer a rigorous course of study in mathematics, the sciences, technology, and engineering; (ii) cooperate with industry experts, museums, universities, research centers, or other STEM-capable community partners to prepare and assist teachers in integrating STEM content across grades and disciplines, in promoting effective and relevant instruction, and in offering applied learning opportunities for students; and (iii) prepare more students for advanced study and careers in the sciences, technology, engineering, and mathematics, including by addressing the needs of underrepresented groups and of women and girls in the areas of science, technology, engineering, and mathematics.

The competitive preference priority will be evaluated in the context of the State's entire application. Therefore, a State that is responding to this priority should address it throughout the application, as appropriate, and provide a summary of its approach to addressing the priority in the text box below. The reviewers will assess the priority as part of their review of a State's application and determine whether it has been met.

Recommended maximum response length, if any: One page

Priority 2: Competitive Preference Priority – Emphasis on Science, Technology, Engineering, and Mathematics (STEM)

Dating back at least to the establishment of the Research Triangle Park in the 1950s, NC has viewed STEM education as critical to the success of our economic development. NC's commitment to a continued and expanded focus on STEM in K-12 education initiatives is reflected throughout this proposal.

P.2.i. Rigorous Course of Study

NC's rigorous course of study in the STEM areas is documented in the Standard Course of Study in mathematics, science, computer/technology skills, and career technical education (which includes a pre-engineering strand). Beginning with the freshman class of 2009-10, all high school students complete a *future-ready core curriculum*. The graduation requirements for this curriculum include four mathematics courses, three science courses (a physical science, biology, and an earth or environmental science), and demonstration of computer skills through a state assessment. Special STEM-focused programs are widely used in NC schools, with,

for example, 112 career academies directly related to STEM, including 60 pre-engineering academies affiliated with the national *Project Lead the Way* Engineering program. Many initiatives in this proposal directly support a rigorous course of study in the STEM areas, including: the development of new, rigorous standards and assessments in the STEM subjects (Section B); the recruitment, preparation, and support of teachers in the STEM areas (Section D); and the development of a network of STEM schools that will provide new opportunities for students, especially those in urban and rural areas with high concentrations of low-achieving schools (Section E). The technology initiative outlined in Section A is foundational to these and all other STEM education initiatives in NC.

P.2.ii. Cooperation Across Sectors

Many STEM education initiatives across NC already benefit from the involvement and support of universities, museums, businesses, foundations, and community partners. Examples include:

- *The NC Business Committee for Education* (NCBCE), located in the Office of the Governor since 1983, has provided an important link between the business and education communities. Many of NC's major technology, banking, pharmaceutical, financial, insurance, manufacturing, and retail businesses are represented on the Committee, and the organization supports all aspects of education, with a specific focus on STEM areas and workforce development (*e.g.*, the NC Center for 21st Century Learning is housed within NCBCE);
- *The NC STEM Community Collaborative*, funded by the Bill & Melinda Gates Foundation, is designed to create a structure for local, regional, and statewide STEM collaboration among leaders in business, government, education, and economic development. It facilitates communities seeking to improve local education to take advantage of the economic opportunities that STEM offers. The Collaborative also links NC's business and educational assets to community-led STEM approaches, creating cross-community networks as well as connections to the national STEM network. The activities of this Collaborative will be coordinated with the *RttT* STEM initiatives, providing opportunities for communities to further enhance strategic staffing (Section D3), professional development (Section D5), STEM schools development (Section E2), and other STEM-related initiatives in their communities;

- *The NC Learning Technology Initiative* (NCLTI) is supported by a combination of a private foundation (Golden LEAF Foundation), business (*e.g.*, SAS Inc., AT&T, CISCO, Lowe's), and NC legislative funding to enable programs in which every teacher and student has a laptop computer, with professional development, curriculum integration, and program evaluation also supported. As a result, 1:1 laptop programs have been initiated or are being planned in at least 38 of the 115 LEAs in NC. The emphasis of all these programs is STEM education, with a strong focus on college and workplace readiness. The cloud computing and statewide digital resources initiative described in Section A is closely linked with the NCLTI, providing the statewide infrastructure necessary for its expansion and success;
- *The NC eLearning Commission*, appointed by the Governor and comprised of K-12, higher education, business, and government leaders, has guided the development of the NC Virtual Public School, the School Connectivity Initiative, and, most recently, the development of the NC eLearning Portal. This group will play a central role in the cloud computing initiative described in Section A and in the use of virtual learning for students (Section D3) and educators (Section D5);
- *The K-12 STEM Education Group* at NC State University is comprised of leaders responsible for engineering outreach programs, 4-H youth development programs, the Kenan Fellows Program for teacher leaders, the Science House professional development and student outreach programs, the education initiatives of the Solar Center, and a pre-college STEM program for students from underrepresented groups. Members of this group will serve in an advisory role for the K-12 STEM initiatives as a whole, and they also will be involved in specific initiatives, such as the technology initiative (Section A), the development of standards and assessments in the STEM areas (Section B), pre-service and professional development for teachers in STEM content areas (Section D), and the STEM schools network (Section E); and
- Most recently, NC has created the *Joining our Businesses and Schools (JOBS) Commission*, which is chaired by Lt. Gov. Walter Dalton. The JOBS Commission will create a partnership between public schools, community colleges, and private businesses to ensure the appropriate educational curriculum is in place for students to maximize their employment potential upon graduation. In

particular, the Commission will work with both public and private programs focused on STEM areas. Additional information can be found in Section E.

P.2.iii. Preparation for Advanced Study and STEM Careers

The rigorous course of study in the STEM areas, the many initiatives and collaborations focused on strengthening STEM teaching and learning, and the *RttT* initiatives described in this proposal are all tied to the statewide goal of preparing more students for advanced study and careers in the STEM areas, with a specific emphasis on students from groups that traditionally have been underrepresented in the STEM areas. Example programs include the *Math and Science Education Network Pre-College Programs* on nine UNC campuses, which prepare underserved students at the middle and high school levels for careers in the STEM areas, and the *NC State Women in Engineering Outreach Program* that encourages young girls and women to consider careers in the STEM disciplines. At the most advanced level, NC takes great pride in its School of Science and Mathematics (NCSSM), the nation's first public residential high school with a specialized curriculum in science and mathematics for advanced students, which has served as a model for other schools nationally and worldwide. In addition to serving its 650 full-time students, the NCSSM has provided professional development for more than 5,000 NC educators, and its distance education and extension programs provide Advanced Placement (AP) courses and enrichment programs to nearly 4,000 NC students statewide each year.

As evidence of NC's success so far, NC boasts a proportion far greater than the national average of students participating in AP courses in mathematics (13.4% of the 2008 graduating class, as compared to 9.3% nationally) and the sciences (12.6% of the 2008 class, as compared to 8.3% nationally). The proposed network of STEM schools (Section E2) is designed to further these goals, again with a special focus on underrepresented groups.

References

Achieve. (2009). *American Diploma Project (ADP) End-of-course exams: 2009 annual report*. Washington, DC: Author.

Alicias, E. R. Jr. (2005). Toward an objective evaluation of teacher performance: The use of variance partitioning analysis, VPA. *Education Policy Analysis Archives*, *13*(30), 1-13.

Board on Testing and Assessment & National Research Council (2009). *Letter report to the U.S. Department of Education on the Race to the Top Fund.* Washington, D. C.: The National Academies Press.

Carey, R., Kleiman, G., Russell, M., Douglas Venable, J., & Louie, J. (2008). Online courses for math teachers: Comparing self-paced and facilitated cohort approaches. *Journal of Technology, Learning, and Assessment, 7*, 3.

Carroll, T. (2007). *Policy brief: The high cost of teacher turnover*. Washington, D. C.: National Commission on Teaching and America's Future.

Confrey, J., Maloney, A., Nguyen, K., Mojica, G., & Myers, M. (2009). *Equipartitioning/splitting as a foundation of rational number reasoning using learning trajectories*. Paper presented at the 33rd Conference of the International Group for the Psychology of Mathematics Education, Thessaloniki, Greece.

Confrey, J., Maloney, A., Nguyen, K., Wilson, P. H., & Mojica, G. (2008). *Synthesizing research on rational number reasoning*. Paper presented at the Research PreSession of the Annual Meeting of the National Council of Teachers of Mathematics.

Cordeiro, P. A., & Smith-Sloan, E. (1995). *Apprenticeships for administrative interns: Learning to talk like a principal.* Paper presented at the annual meeting of the American Educational Research Association at San Francisco, CA.

Crow, G. M., & Matthews, L. J. (1998). *Finding one's way: How mentoring can lead to dynamic leadership*. Thousand Oaks, CA: Corwin Press.

D'Agostino, J., & Powers, S. J. (2009). Predicting teacher performance with test scores and grade point average: A meta-analysis. *American Educational Research Journal, 46*(1), 146-182.

Darling-Hammond, L. (2009). *Education opportunity and alternative certification: New evidence and new questions*. Stanford, CA: Stanford Center for Opportunity Policy in Education. (policy brief)

Darling-Hammond, L., Wei, R. C., Andree, A., Richardson, N., & Orphanos, S. (2009). *Professional learning in the learning profession: A status report on teacher professional development in the United States and Abroad*. Dallas, TX: National Staff Development Council.

Davis, S., Darling-Hammond, L., LaPointe, M. A., & Meyerson, D. (2005). *School leadership study: Preparing successful principals*. Stanford, CA: Stanford Educational Leadership Institute.

Dede, C. (2006). *Online professional development for teachers: Emerging models and methods*. Cambridge, MA: Harvard Education Press.

Donaldson, M. L. (2008). *Teach for America teachers' careers: Whether, when, and why they leave low-income schools and the teaching profession*. Paper presented at the American Educational Research Association.

Dorn, S., Papalewis, R., & Brown, R. (1995). Educators earning their doctorates: Doctoral student perceptions regarding cohesiveness and persistence. *Education*, 116, 305–314.

Elmore, R. F. (2000). Building a new structure for school leadership. *American Educator, 23*(4), 6-13.

Elmore, R.F. (2002). *Bridging the gap between standards and achievement: The imperative for professional development in education*. Washington DC: Albert Shanker Institute.

Garet, M. S., Porter, A. C., Desimone, L., Birman, B. F., & Yoon, K. S. (2001). What makes professional development effective? Results from a national sample of teachers. *American Educational Research Journal, 38*(4), 915-945.

Hale, E. L., & Moorman, H. N. (2003). *Preparing school principals: A national perspective on policy and program innovations*. Washington, DC: Institute for Educational Leadership, and Edwardsville, IL: Illinois Education Research Council.

Henry, G.T., Rickman, D.K., Fortner, C.K., & Thompson, C.L. (2008). *Improving teacher quality in the DSSF pilot districts: A comparison of progress from 2004-05 to 2005-06.* Chapel Hill, NC: Carolina Institute for Public Policy, University of North Carolina at Chapel Hill.

Heritage, M. (2008). *Learning progressions: Supporting instruction and formative assessment*. Los Angeles, CA: National Center for Research on Evaluation, Standards, and Student Testing (CRESST).

Hirsch, E., & Emerick, S. (2007). *Teacher working conditions are student learning conditions: A report on the 2006 North Carolina Teacher Working Conditions Survey*. Hillsborough, NC: Center for Teaching Quality (CTQ).

Ingersoll, R. M. (2001). Teacher turnover and teacher shortages: An organizational analysis. *American Educational Research Journal, 38*(3), 499.

Jackson, C. K. & Bruegmann, E. (in press). Teaching students and teaching each other. *American Economic Journal: Applied Economics*.

Lockwood, J. R., McCaffrey, D. F., Hamilton, L. S., Stecher, B., Le, V. N., & Martinez, J. F. (2007). The sensitivity of value-added teacher effect estimates to different mathematics achievement measures. *Journal of Educational Measurement, 44*(1), 47.

Martineau, J. A. (2006). Distorting value added: The use of longitudinal, vertically scaled student achievement data for growth-based, value-added accountability. *Journal of Educational and Behavioral Statistics, 31*(1), 35.

Milanowski, A. T., Heneman III, H. G., and Kimball, S. M. (2009). *Review of teaching performance assessments for use in human capital management*. Madison, WI: Consortium for Policy Research in Education. Working Paper. Retrieved 23 August, 2009, from http://www.smhc-cpre.org/resources/.

Mislevy, R. J., Steinberg, L. S., & Almond, R. A. (2003). On the structure of educational assessments. *Measurement:Interdisciplinary research and perspectives*, 1, 3-67.

Mislevy, R. J., Steinberg, L. S., Almond, R. A., & Lukas, J. F. (2006). Concepts, terminology, and basic models of evidence‐centered design. In D. M. Williamson, I. I. Bejar & R. J. Mislevy (Eds.), *Automated scoring of complex tasks in computer-based testing.* Mahwah, NJ: Erlbaum.

Mortenson, T. G. (2008). Chance for college by age 19 by state, 1986 to 2006. *Postsecondary Education Opportunity, 195* (September 2008): 1-16.

Murphy, J. (1992). *The landscape of leadership preparation: Reframing the education of school administrators.* Newbury Park, CA: Corwin Press.

Murphy, J. (2002). Reculturing the profession of educational leadership: New blueprints. *Educational Administration Quarterly*, 38(2), pp. 176–192.

Muth, R., & Barnett, B. (2001). Making the case for cohorts: Identifying research gaps, improving professional preparation and gaining political support. *Educational Leadership and Administration, 3*, 109-121.

National Staff Development Council. (2001). *Standards for staff development (Revised)*. Retrieved October 16, 2009. from http://www.nsdc.org/standards/.

New Leaders for New Schools. (2008). *Key insights of the Urban Excellence Framework: Defining an urban principalship to drive dramatic achievement gains*. New York: New Leaders for New Schools.

North American Council for Online Learning. (2007). *iNACOL National standards of quality for online courses*. Retrieved December 5, 2009, from http://www.inacol.org/research/nationalstandards/

North Carolina Blue Ribbon Commission on Assessment and Accountability. (2008a). *A framework for change: The next generation of assessments and accountability.* Retrieved October 16, 2009, from http://www.dpi.state.nc.us/docs/acre/basis/overview.pdf.

North Carolina Blue Ribbon Commission on Assessment and Accountability. (2008b). *Report of the North Carolina Blue Ribbon Commission on Assessment and Accountability.* Retrieved October 16, 2009, from http://www.dpi.state.nc.us/docs/acre/basis/accountabilityfinalreport.pdf.

Oliver, K. M., Brady, K. B., Patel, R., & Townsend, T. (2009). *Formative evaluation report: North Carolina Virtual Public School*. Raleigh, NC: William & Ida Friday Institute for Educational Innovation.

Pellegrino, J., Chudowsky, N., & Glaser, R. (Eds.). (2001). *Knowing what students know: The science and design of educational assessment*. Washington, DC: National Academy Press.

Penuel, W. R., Fishman, B. J., Yamaguchi, R., & Gallagher, L. P. (2007). What makes professional development effective? Strategies that foster curriculum implementation. *American Educational Research Journal, 44*(4), 921.

Public School Forum of North Carolina. (2009). *Better identification and preparation of school leaders.* Retrieved January 6, 2010, from http://www.ncforum.org/doclib/Policy_Report_School_Leaders_web.pdf.

Public Schools of North Carolina. (2009). *The North Carolina 2009 SAT Report*. Raleigh, NC: Author. Retrieved December 16, 2009, from http://www.dpi.state.nc.us/docs/newsroom/news/2009-10/0825/sat-report-final.pdf

Raudenbush, S. W. (2004). What are value-added models estimating and what does this imply for statistical practice? *Journal of Educational and Behavioral Statistics, 29*(1), 121-129.

Reiman, A. J., Corbell, K., & Thomas, E. (2007). *New teacher support: A report to the Dean's Council on Teacher Education*. Raleigh, NC: UNC-GA.

Rice, J.K. (2003) *Teacher quality: Understanding the effects of teacher attributes.* Washington, D.C.: Economic Policy Institute.

Rothstein, J. (2009). Teacher quality in educational production: Tracking, decay, and student achievement. *Quarterly Journal of Economics*, Forthcoming. Retrieved 13 July, 2009, from http://gsppi.berkeley.edu/faculty/jrothstein/published/rothstein_vam_may152009.pdf

Russell, M. (2009). *Preliminary findings for the e-Learning for Educators randomized professional development trials*. e-Learning for Educators Annual Meeting, Charleston, SC.

Sanders, W. L., Wright, S. P., & Horn, S. P. (1997). Teacher and classroom context effects on student achievement: Implications for teacher evaluation. *Journal of Personnel Evaluation in Education, 11*(1), 57-67.

Southern Regional Education Board. (2004). *Standards for online professional development*. Retrieved October 16, 2009. from http://www.nsdc.org/standards/index.cfm.

Sparks, D., & Hirsh, S. (1997). *A new vision for staff development*. Alexandria, VA: Association for Supervision and Curriculum Development.

Stoll, L., Bolam, R., McMahon, A., Wallace, M., & Thomas, S. (2006). Professional learning communities: A review of the literature. *Journal of Educational Change, 7*(4), 221-258.

Treacy, B., Kleiman, G., & Peterson, K. (2002). Successful online professional development. *Learning and Leading with Technology, 30*(1), 42-49.

Wilson, M. (2005). *Constructing measures: An item response modeling approach*. Mahwah, NJ: Lawrence Erlbaum Associates.

Xu, Z., Hannaway, J., & Taylor, C. (2007). *Making a difference? The effects of Teach for America in high school*. Washington, D. C.: Urban Institute.

Acronyms used in NC RttT Application

ACEL	Advanced Certification for Educational Leaders
ACRE	Accountability and Curriculum Redesign Effort
ADM	Average Daily Membership
AP	Advanced Placement
AYP	Adequate Yearly Progress
BCG	Boston Consulting Group
CCSSO	Council of Chief State School Officers
CDA-M	Cognitive Diagnostic Assessment Model
CEDARS	Common Education Data Analysis & Reporting System
CMO	Charter Management Organization
CMS	Charlotte-Mecklenburg Schools
CTAC	Community Training and Assistance Center
DSSF	Disadvantaged Student Supplemental Funding
DST	District and School Transformation
EES-ST	Educator Evaluation System Support Teams
ELA	English Language Arts
EMO	Education Management Organization
EVAAS	Education Value-Added Assessment System
IHE	Institutes of Higher Education
IS4	Integrated System of School Support Services
JOBS	Joining Our Businesses and Schools
LEA	Local Education Agency
LEP	Limited English Proficient
MSA	Masters in School Administration
NACOL	North American Council for Online Learning
NAEP	National Assessment of Educational Programs
NBCT	National Board Certified Teachers
NCAE	NC Association of Educators
NCBCE	NC Business Committee for Education

NCCCS	NC Community College System
NCDPI	NC Department of Public Instruction
NCECDG	NC Early Childhood Data Group
NCEES	NC Educator Evaluation System
NCES	National Center for Education Statistics
NCICU	NC Independent Colleges and Universities
NCLB	No Child Left Behind
NCLTI	NC Learning Technology Initiative
NCNSP	NC New Schools Project
NCSSM	NC School of Science and Mathematics
NCSU	NC State University
NCVPS	NC Virtual Public School
NCWISE	NC Window on Student Education
NEA	National Education Association
NGA	National Governors' Association
NLNS	New Leaders for New Schools
NSDC	National Staff Development Council
OCS	Office of Charter Schools
PD	Professional Development
PDI	Professional Development Initiative
PEP	Principal Evaluation Process
PLC	Professional Learning Community
PMO	Project Management Office
RAC	Regional Accountability Coordinators
RALC	Regional Alternative Licensing Center
RLA	Regional Leadership Academies
SBE	State Board of Education
SLDS	Statewide Longitudinal Data System
SLO	Student Learning Objectives
SMART	Specific, Measurable, Attainable, Relevant, and Time-Bound
SP1	Standard Professional 1

SP2	Standard Professional 2
SREB	Southern Regional Education Board
STEM	Science, Technology, Engineering, and Mathematics
TALAS	Turn Around the Lowest-Achieving Schools
TEI	Teacher Effectiveness Initiative
TEP	Teacher Evaluation Process
TFA	Teach for America
TIF	Teacher Incentive Fund
TRSI	Teachers for Rural Schools Initiative
TTT	Troops to Teachers
TWC	Teacher Working Conditions
UNC	University of North Carolina
UNC-GA	UNC General Administration